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ABSTRACT

The working papers by students and professors of linguistics on research in progress include the following: "Are Cariban Languages Moving Away From or Towards Ergative Systems?" (Desmond D. Derbyshire); "A Double-Verb Construction in Mbya Guarani" (Robert A. Dooley); "Semantically Ergative Languages in Typological Perspective" (Alexandr E. Kibrik); "The Definite Article with Proper Names for Referring to People in the Greek of Acts" (Stephen H. Levinsohn); "On the Syllabification of /tl/ Clusters in Spanish" (Steve Parker); and "Agutaynen Glottal Stop" (J. Stephen Quakenbush). (MSE)

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Robert A. Dooley and J. Stephen Quakenbush

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Preface

The six papers in this volume represent a variety of language types and linguistic concerns as investigated by a few of the linguists associated with the Summer Institute of Linguistics at the University of North Dakota. Derbyshire, Director of the Summer Institute from 1982 to 1988, writes on a current issue in Amazonian linguistics – the direction of change in languages of that area with regard to ergativity. Dooley, the current Director, contributes a paper on a double-verb construction in a Tupian language of Brazil, noting its implications for the study of similar constructions cross-linguistically. It is with special pleasure that we include a paper from Alexandr E. Kibrik, of Moscow State University, who was a visiting scholar during this 1991 session. Kibrik is well-known for his work in syntactic typology, and particularly for his fieldwork on minority languages of the Soviet Union. In his paper included here, he addresses ergative phenomena from the viewpoint of a semantics-based typology. Both Levinsohn's and Parker's contributions were first presented in 1990 as part of the SIL Colloquium Series. Levinsohn sheds light on participant reference in New Testament Greek, while Parker uses a type of language play in Spanish to illuminate the phonological structure of that language. Quakenbush details an apparent sound change in progress in a Philippine language, relating its spread to both social and linguistic factors.

We would be remiss if we failed to acknowledge with gratitude the efforts of our colleagues – Betty Brown for her expert copy-editing, Bob Wright for his highly efficient computer assistance, and Kathie Dooley both for copy-editing and for her capable supervision of the production and distribution process.

From matters synchronic to diachronic; from South America, the Ancient Mediterranean, the Soviet Union, to Southeast Asia; from phonology, syntax, typology, semantics and pragmatics to sociolinguistics – there is a little something here for everyone.

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TABLE OF CONTENTS

Preface iii

Are Cariban Languages Moving Away From or Towards Ergative Systems? 1
Desmond C. Derbyshire

A Double-Verb Construction in Mbyá Guaraní 31
Robert A. Dooley

Semantically Ergative Languages in Typological Perspective 67
Alexandr E. Kibrik

The Definite Article with Proper Names for Referring to People in the Greek of Acts 91
Stephen H. Levinsohn

On the Syllabification of /tl/ Clusters in Spanish 103
Steve Parker

Agutaynen Glottal Stop 119
J. Stephen Quakenbush

ARE CARIBAN LANGUAGES MOVING AWAY FROM OR TOWARDS ERGATIVE SYSTEMS?

Desmond C. Derbyshire

1 Introduction
2 Data from three Cariban languages
  2.1 Macushi
  2.2 Hixkaryana
  2.3 Panare
3 Discussion of alternative hypotheses
  3.1 The alternatives defined
  3.2 Evidence offered in support of Hypothesis 1
    3.2.1 General principles
    3.2.2 Specific claims
  3.3 Evidence offered in support of Hypothesis 2
    3.3.1 The Panare *-sa'* construction
    3.3.2 Nominalizations
    3.3.3 Subordinate clauses
    3.3.4 Hixkaryana transitive prefixes
    3.3.5 Summary
4 Evidence from other Cariban languages and other Amazonian language families
  4.1 Kuikuro (Carib)
  4.2 Non-Cariban Amazonian languages
Abbreviations
References

1 Introduction

The purpose of this paper is to weigh the evidence that will help us to determine whether Amazonian languages have moved historically from earlier ergative-absolutive systems to nominative-accusative or mixed systems, or whether the change has been in the other direction. The main focus is on languages of the Cariban family, but I will refer to other Amazonian language families which suggest that a single pattern of historical development applies throughout the Amazon area.

This is a current issue in Amazonian linguistics. Hypotheses representing both possible directions of change have been proposed, specifically for Cariban languages. I first tentatively suggested (Derbyshire 1981) that the change in Cariban was from an earlier ergative system towards an accusative or mixed system. That paper was primarily about historical word order change, based on a study of three languages that currently reflect different stages in their dominant patterns: the earlier stage SOV, surviving today in Surinam Carib, an intermediate stage SOV/OVS found in Macushi, and the latest stage OVS in Hixkaryana. I linked the drift in Hixkaryana from SOV to OVS with an accompanying loss of ergative case marking in main clauses (in Hixkaryana subordinate clauses the case marker regularly occurs, and so does the older SOV pattern). But at that time of writing I was careful to add that I did not have the evidence to judge whether ergative case marking was a part of early Carib syntax.

In Derbyshire 1987, I made a much stronger statement that the direction of historical change has been from an ergative to an accusative (or mixed) system. This was partly because by then more facts were available on some Cariban languages, but also because a similar hypothesis was being proposed for other Amazonian language families, in particular for the Tupí and Ge families (Harrison 1986). Since then, two other papers have strongly supported this view of the direction of change, one for the Tupí family (Jensen 1990) and the other for Cariban (Franchetto 1990). I shall return in sects. 3.3.5 and 3.3.6 to a more detailed discussion of the evidence offered by these scholars.

The main challenge to that view has come from two linguists at the University of Oregon, both working in the Cariban language Panare, spoken in Venezuela. T. Payne (1990) first tentatively suggested that Panare might be at an intermediate stage of change from nominative-accusative to ergative. That suggestion has been more fully developed for Panare, and applied more generally to the Cariban family, by Gildea (1990). I will present Gildea's hypothesis in sect. 2.3 and discuss it further in sect. 3.2.

In the general literature much has been said on how ergative systems have developed — mainly from earlier nominalizations and/or passive constructions. (See, for example, Comrie 1978). Estival & Myhill (1988:445) make the strong claim that all ergative constructions have developed from passives.

Not as much, however, has been said on change in the other direction — from ergative to nonergative systems. Estival & Myhill, in the work just cited, include the possibility for historical change from ergative to accusative; it is the final stage in their 4-stage cycle of change: from (1) passive to (2) morphologically ergative to (3) deep ergative to (4) nominative-accusative, from which the cycle may later start all over again. The only historically documented example, according to them, of the full development from passive to ergative and then accusative is found in Indo-Iranian languages (cf. Anderson 1977).

Comrie (1978) also cites examples of change from ergative to accusative systems. He suggests this may happen in two ways. First, antipassives in an earlier ergative system can be the source of a new nominative-accusative system, and he cites Georgian as an example. This is not the source of change I will be proposing for Cariban languages, which lack any type of standard antipassive construction. The second way Comrie suggests is the development, within the older ergative system, of nominalizations in which the S and A assume the genitive case (i.e., the GENITIVE-NOMINATIVE strategy), instead of the expected S and O (GENITIVE-ABSOLUTIVE strategy) one might expect in the ergative system. He cites the Mayan languages Chol and Jacaltec as examples of this mechanism of change to a partial nominative-accusative system. Nominalizations are an important part of my argument for assuming that the direction of change is from ergative to accusative systems in Cariban, but for a quite different reason from that which Comrie suggests: in Cariban languages, the pivot for the genitive case in nominalizations continues to be S and O (not S and A) even after the main clause syntax has changed to an accusative pattern. As I shall argue in sect. 3.3.2, it seems reasonable to suppose that this genitive-absolutive strategy, found consistently in Cariban languages, is a relic of an earlier more widespread ergative-absolutive patterning.

Recent work on Australian languages indicates that in the Ngayarda and Tangkic subgroups there is evidence of a change from earlier ergative to accusative systems (Dixon 1981; Dench 1982; Evans 1985; Blake 1987). It has been claimed that in some of these languages the source for the development was the generalizing of the antipassive construction, one of the two mechanisms of change suggested by Comrie. Dench (op. cit.) suggests that it was the generalizing of a productive intransitive semantic antipassive construction that led to the change, with the dative case marker in the intransitive clause being reanalyzed as an accusative marker; as the new accusative pattern was becoming the dominant transitive clause, the less productive older transitive clause, i.e., the ergative construction, was being reanalysed as a passive. Blake (op. cit.) has attributed the change to accusative systems in these languages to the need to resolve the conflict between (1) the semantically-based case-marking that is the same for S and O and (2) the pragmatic pressure to identify S and A as the topic. As he points out, however, this in itself would not justify an earlier ergative hypothesis. An additional factor must be present (p. 186):

> The question must be resolved by a consideration of the actual marking to see if it is irregular and fossilized or regular, productive and therefore 'new looking'.

He proceeds to show that this factor is present in the nominative-accusative Ngayarda languages. He notes that what appears to be a passive agentive marker on the nominal (the instrumental suffix *-lu*) is likely to be a survivor from a once-dominant ergative system, indicating that it is the nominative-accusative system that represents the innovation. This is similar to an argument I will use for postulating the same direction of change in Cariban, except that the fossilized form in Cariban is an agentive marker in nominalizations rather than a passive marker.

In this paper, then, I will be arguing for a direction of change in Cariban languages from systems that are purely ergative in both nominal case marking and verb agreement patterns (and which are probably of considerable antiquity) to mixed systems where in main clauses the core nominals are not marked at all and the verb agreement patterns are a mixture of nominative and absolutive, based on an agentivity-person hierarchy. Subordinate clauses take the form of nominalizations that retain characteristics of the older pure ergative system.

Estival & Myhill (1988) state categorically that there are no passive constructions which have been shown to have developed directly from ergative constructions. T. Payne (1990) uses this as an argument for not accepting an earlier ergative system for Panare, but this crucially depends on his analysis of certain Panare constructions as passives. I will argue that these constructions are, in fact, nominalizations that reflect earlier ergativity.

In sect. 2 I will present synchronic data and relevant descriptive facts from three Cariban languages that Gildea (1990) regards as representative of three different case-marking and verb-agreement systems. This will be followed in sect. 3 by a comparison and evaluation of the two hypotheses concerning the direction of change, based on the facts from those three languages. Finally, in sect. 4 I will offer evidence from work in one other Cariban language and in some non-Cariban languages which suggests that the change from ergative to accusative/mixed systems may be generally characteristic of Amazonian languages, or at least of a possible major group of language families that may prove to be genetically related.

2 Data from three Cariban languages

I will now present the case-marking and agreement systems of the three Cariban languages selected by Gildea: Macushi, Hixkaryana and Panare. Gildea chose these as representing three different kinds of systems: *ergative* (Macushi), *nominative* (Hixkaryana), and *mixed* (Panare). I will show that this tripartite division is misleading. Macushi is certainly ergative, but Hixkaryana is far from being a nominative language. It is, like Panare, a mixed language type. This is also probably the case with the other languages he lists as nominative (Surinam Carib, Waiwai and Tiriyo). No Cariban language that I have studied has anything like a pure nominative-accusative system. In contrast, Macushi is one of the most purely and comprehensively ergative systems I have seen reported anywhere in the world. I will begin this presentation and discussion of the data with Macushi.[1]

2.1 **Macushi** (from Abbott 1991:83-84)

(1) a. Intransitive with S nominal

u-yonpa- kon João ko'mamî-'pî miarî
1-relative-COLL John remain- PAST there
'Our relative John stayed there.'

b. Intransitive with S verbal prefix

aa-ko'mamî-'pî asakî'ne wei kaisarî
2- remain- PAST two day up:to
'You stayed two days.'

c. Transitive with A and O nominals

more- yamî yenupa-'pî to' yenupa-nen- ya
child-COLL teach- PAST 3COLL teach- S:NOMLZR-ERG
'Their teacher taught the children.'

d. Same, with fronted A nominal

warayo'-ya tî- nmu eporî-'pî
man- ERG 3:REFL-son find- PAST
'The man found his son.'

---

[1] I will be using S, A, and O in the way these symbols have become fairly standard: S for intransitive subject, A for transitive subject, and O for transitive direct object.

e. Transitive with A free pronoun (Hodsdon 1976)

mîrîrî ye'nen tuna ekaranmapo-'pî uurî-ya
that because water ask:for- PAST I- ERG
'That's why I asked for water.'

f. Transitive with O nominal, A verbal suffix

mîîkîrî eporî-'pî- i-ya
3PRO find- PAST-3-ERG
'He found him.'

g. Transitive with O verbal prefix, A verbal suffix

i-koneka-'pî- u-ya
3-make- PAST-1-ERG
'I made it.'

h. Same, with roles of A and O referents reversed

u-koneka-'pî- i-ya
1-make- PAST-3-ERG
'He made me.'

i. Subordinate clause, intransitive verb

aw-enna'po-'pî- kon epu'tî-'pî- i-ya
2- return- PAST-COLL know- PAST-3-ERG
'He knew you all returned.'

j. Subordinate clause, transitive verb

mîî pe nai, moro' poka- sa'- Ø-ya ye'nen
proud:one DENOM 2:be fish arrow-CMPL-2-ERG because
'You are proud, because you arrowed fish.'

The strongly ergative system of Macushi is seen in the following characteristics:

- Intransitive subject (S) and transitive object (O) nominals are not marked for case and occur immediately before the verb (1a,c,d).

- Transitive subject (A) is marked by the suffix *-ya* 'ERG', whatever its position and whatever the form of the nominal, including pronouns (1c,d,e). The normal position for the A nominal is postverbal, but it can be fronted to precede the OV sequence (1d).

- When the nominals are not overtly expressed, and only then, the S and O are expressed by person-marking prefixes on the verb, and the A by a person-marking suffix (1b,f,g,h).

- When the A is a person-marking suffix, it also is immediately followed by the ergative suffix *-ya* (1f,g,h).

- The ergative system occurs also in finite subordinate clauses (1i,j). Many Macushi subordinate clauses are finite and there are fewer nominalization processes than in Hixkaryana (see also sect. 3.3.3).

- There is a single set of person-marking affixes that occur as both prefixes and suffixes (cf. *u-* and *-u* '1' in (1g,h); and *-i* and *i-* '3' in (1f,g). The only major exception is first person inclusive, which is irregular in all its forms: S is *-n/-nɨ*, the only suffixal S; O is *u(y)-*; and A is -o and is the only A form that is not followed by *-ya* 'ERG'.

In summary, the almost rigid ergativity of Macushi is expressed by case marking, verb agreement, word order and affix ordering, with case marking of both nouns and pronouns, all of which occur in both main and subordinate clauses and with all tense-aspect-modal categories.

2.2 Hixkaryana

(2) a. Intransitive with S nominal

n- omoh-txowɨ toto komo
3S-come-IP:COLL person COLL
'The people have come.'

b. Transitive with A and O nominals

bɨryekomo y- arɨ- ye Waraka
boy 3A3O-take-DP Waraka
'Waraka took the boy.'

c. Transitive with O nominal and A prefix only

bɨryekomo w- arɨ- ye	bɨryekomo y- arɨ- ye
boy 1A3O-take-DP	boy 3A3O-take-DP
'I took the boy.'	'He took the boy.'

d. Intransitive with S verbal prefix only

k- amryek-no	ay-amryek- no	n-amryek-no
1S-hunt- IP	2- hunt- IP	3-hunt- IP
'I hunted.'	'You hunted.'	'He hunted.'

e. Transitive with A and O prefixes, A-oriented

w- a- no	m- a- no	n- a- no
1A3O-take-IP	2A3O-take-IP	3A3O-take-IP
'I took him.'	You took him.'	'She took him.'

f. Transitive with A and O prefixes, O-oriented

r- a- no	ay- a- no	k- a- no
3A1O-take-IP	3A2O-take-IP	3A,1+2O-take-IP
'She took me.'	'She took you.'	'She took us.'

g. Subordinate clause, nominalized intransitive verb

hawana komo y-omokɨ-txhe, n- as- ahxemto-txowɨ omeroro
visitor COLL 3-come- after 3S-REFL-feast- IP:COLL all
'After the coming of the visitors, everybody feasted.'

h. Subordinate clause, nominalized transitive verb

Waraka wya bɨryekomo y-arɨ- txhe, n- ekho- txownɨ
Waraka by boy 3-take-after 3S-be:sad-DP:COLL
'After the taking of the boy by W, they were all sad.'

i. Nominalizations:

Intransitive	Transitive
oy-omokɨ-txhe 2- come- after 'after your coming'	ro-wya ay-arɨ- txhe 1- by 2- take-after 'after my taking you'
r-omokɨ-txhe 1-come- after 'after my coming'	o-wya r-arɨ- txhe 2-by 1-take-after 'after your taking me'
k- omokɨ-txhe- nye 1+2-come- after-COLL 'after our coming'	ɨ-wya-nye k- arɨ- txhe- nye 3-by- COLL 1+2-take-after-COLL 'after they took us all'
Ø-omokɨ-txhe 3-come- after 'after his coming'	ro-wya Ø-arɨ- txhe 1- by 3-take-after 'after my taking him'
ɨ-to-txhe 3-go-after 'after his going'	ro-wya ɨ-koroka-txhe 1- by 3-wash- after 'after my washing him'

Hixkaryana has a mixed system, the main characteristics being:

- The basic word order pattern has both intransitive and transitive subject nominals following the verb (2a,b), though they can be fronted for special pragmatic effects (Derbyshire 1986). The object (O) nominal, if it occurs, is almost always immediately preceding the verb (2b,c), as in Macushi.

- There is no case marking in main clauses (2a,b).

- Person markers in the verb are always prefixes and occur whether or not there are S, A or O nominals in the clause (2a-f).

- Transitive verb person markers show a split between A-oriented and O-oriented forms, based on the hierarchy: 1/2 > 3. When 3 is the A and any other person(s) the O, the O-oriented forms are used (2f). Even when two third persons are involved, if the verb is preceded by an O nominal, then the 3 O-oriented form occurs (2c, *bɨryekomo yarɨye*). Otherwise the A-oriented forms occur (2e).

- First person verb prefixes show distinct forms for S (*kamryekno* in 2d), A (*wano* in 2e), and O (*rano* in 2f).

- Second person intransitive verb prefixes take one of two forms, depending on the verb. These are the same as the two transitive forms: either the O-oriented *o-* or *a-* prefix (vowel harmony determines which of these), or the A-oriented *m(ɨ)-*. This appears to be an active-nonactive type of split, but there is no obvious semantic basis for it: most basic (nonderived) intransitive verbs take the *o-/a-* form, but verbs of action/motion vary, taking either one or the other form: *m-omokno* 'you came'; *mɨ-tono* 'you went'; *ay-amryekno* 'you hunted/went hunting' (2d); *o-horohno* 'you stopped (came to a halt)'. All derived, reflexive-detransitivized verbs take the *m(ɨ)-* form.

- Third person prefixes have the same form (*n-*) for both intransitive (2d) and transitive (2e) verbs, except (as noted above) when the transitive clause has a nominal object immediately preceding the verb (2c; here the form is *y-*, which occurs with stem-initial vowels; with stem-initial consonants there is a null prefix).

- All subordinate clauses have nominalized, nonfinite verb forms (2g-i). There are many types of nominalization, marked as such by their suffixes (the *-txhe* suffix in these examples expresses action that is prior to the action of the main clause verb). The possessor prefixes that co-occur are the same forms that occur with simple possessed nouns (e.g., 'my house', 'my sister', 'my eye', etc.). These are the same as the O-oriented verb prefixes already described, except for third person when there is no preceding possessor nominal; the form is then *ɨ-* (before consonants) and *Ø-* (before vowels), as in the last two pairs of examples under (2i). Virtually all nominalizations are ergatively organized, with the underlying S or O being expressed in the possessor form. This will always include a prefix on the head nominalized verb, whether or not there is also a preceding possessor nominal (compare (2g) and (2h), where

there are possessor nominals, with the (2i) forms, where there are no possessor nominals). The underlying A of the nominalized transitive verb is expressed by a *wya* phrase, as in (2h) and the examples in the second column of (2i). This postposition *wya* is cognate with Macushi *-ya* 'ERG'; in Hixkaryana it also functions as the indirect object marker.

Hixkaryana thus differs from Macushi in a number of ways. First, in main clauses, H has: (i) a different basic word order, with S lining up with A post-verbally; (ii) no case marking of A; and (iii) different patterns of person marking on the verb – all are prefixes, and there are two paradigm sets, one A-oriented and the other O-oriented. Second, in subordinate clauses, H has only nonfinite, nominalized forms of the verb. It is in the subordinate clauses, however, that ergatively-organized patterning occurs, and it is clearly related to the much fuller ergative system in Macushi, with a cognate form for the ergative marker.

2.3 Panare (from Gildea 1990, following his analysis)

(3) a. Nominative system: intransitive with S nominal

n-as- ama- ika-yaj kën
3-DTR-throw:out-NEG-PPERF1 ANIM:INV
'S/he stayed.'

b. NOM system: transitive with A and O nominals

Toman y- áma- yaj kën
Thomas 3A/3O-knock:down-PPERF1 ANIM:INV
'S/he knocked down Thomas.'

c. NOM system: transitive with A nominal only

n-petyúm-yaj kën
3-hit- PPERF1 ANIM:INV
'S/he hit him/her.'

d. Ergative/passive system: intransitive

y-os- awantë-jpë y-ɨt- ɨjkëmɨ-sa'
3-DTR-kill- PERF:INFER 3-DTR-tire- PERF:VIS
'He died worn out.'

e. ERG/PASS system: transitive

ejke manko, y-ɨkɨtë-jpe ty-uya
NEG:EXIST mango 3-cut- PERF:INFER 3- DAT
'There is no mango he cut it/it has been cut by him.'

f. Main clause passive construction

naro	y-ɨkɨtɨ-sa'	këj	(tëëna úya)
parrot	3-cut- PERF:VIS	ANIM:PROX	(Teena DAT)

'The parrot is cut (by Teena).'

These are all the Panare examples given by Gildea in support of his hypothesis, which is that Panare is still basically a nominative-accusative system, with passive constructions that are close to becoming an ergative system. The characteristics he regards as relevant are:

1. In what he describes as the nominative system in Panare, the S and A nominals follow the verb and neither they nor the O nominal are marked for case (3a-c). The O nominal normally occurs immediately before the verb (3b). The person markers in the verb are always prefixes and occur whether or not there are S, A or O nominals in the clause (3a-c). The third person prefix in the transitive verb varies according to whether there is a preceding O nominal (3b,c). All of this is exactly what is found in Hixkaryana and the third person prefixes (*n-* and *y-*) are identical in form and function in the two languages.

2. Gildea then describes what he says could be either an ergative system or a passive construction in a nominative system (3d,e). The same set of verb agreement prefixes agrees with the subject of intransitive (3d) and the object of transitive (3e). In both examples, however, the form of the prefix is *y-* '3', which T. Payne (1990) shows as part of the transitive object-marking set. If, as Gildea finally concludes (see next paragraph), these are passive constructions, one would expect the intransitive *n-* '3' prefix (as in (3a)). The A pronominal in (3e) is case marked with the dative postposition *uya*, which is cognate to the Macushi *-ya* 'ERG' and Hixkaryana *wya*. This is parallel to what occurs in Hixkaryana nominalized subordinate clauses, but Gildea is arguing that (3d) and (3e) are part of the finite main clause system in Panare. I shall return to this in sect. 3.3.1.

3. Gildea finally argues for a passive analysis (as against an ergative analysis) for the constructions in (3d), (3e) and (3f). The aspectual verb suffix *-sa'* 'PERF' and the auxiliary *këj* 'ANIM:PROX' are, he claims, the morphological elements that signal it as passive. He does not, however, explain why the subject in (3f) occurs clause initial, when the normal position for all subjects is following the verb. Nor does he give any explanation for the intransitive main verb in (3d): *yosawantëjpë* 'he died'. Is this also some kind of passive, even though it is formed from an intransitive

verb? And why the *y-* '3' prefix, when the third person intransitive prefix is *n-* (3a), and *y-*, according to T. Payne (1990), is part of the transitive object-marking set?

4. According to Gildea, the passive construction has come about through reanalysis of a nominalized construction. He tacitly accepts nominalization as the synchronic analysis for this type of construction in other Carib languages. And the aspectual suffix *-sa'*, which he claims is a passive marker in (3f), seems to be a nominalizing suffix in *yɨtɨjkëmɨsa'* in (3d) (= 'the one who was worn out'). I will discuss these *-sa'* constructions more fully in sect. 3.2.2.

3 Discussion of alternative hypotheses

3.1 The alternatives defined

First, I will state more clearly what the two alternatives are with regard to the direction of diachronic change in the Cariban case-marking and verb-agreement systems.

> Hypothesis 1 (Gildea, T. Payne):
>
> The historically earlier system was nominative-accusative. (The languages that currently still reflect that stage are Hixkaryana, Waiwai, Surinam Carib, Tiriyo). The change has been to mixed systems via nominalization and passive constructions. (The languages now at this mixed stage are Panare, Apalaí, Carina, Yukpa). The final stage is a fully ergative system. (Languages that have reached that stage are Macushi, Pemong, Kuikuro, Akawaio, Arekuna).
>
> Hypothesis 2 (Derbyshire, Franchetto):
>
> The historically earlier system was ergative-absolutive in main and subordinate clauses (Macushi, Pemong, Kuikuro). The change has been toward: (1) in main clauses, loss of nominal case marking and introduction of a partial nominative pattern of verb agreement that is mixed with elements from the earlier ergative-absolutive system, and (2) in subordinate clauses, nominalized constructions organized on the earlier ergative-absolutive basis (Hixkaryana, Panare, Waiwai, Surinam Carib).

3.2 Evidence offered in support of Hypothesis 1

Gildea offers two main types of evidence: application of general methodological principles (3.2.1), and a specific construction in Panare (3.2.2).

3.2.1 General principles. Gildea follows certain fairly well-established principles relating to morphological diachronic change: independent words tend to suffer phonological and syntactic loss over a period of time and become attached to other words, first as clitics and later as rigidly bound affixal forms. Thus, free pronouns become agreement affixes, auxiliaries become tense-aspect affixes, etc. Following these principles, he proposes four parameters for determining the likely relative ages of different morphological systems in the languages of a family such as Cariban:

(1) Size: affixes in an older system should be phonologically smaller than affixes in a newer system.

(2) Degree of binding: forms will be more rigidly bound to their heads in an older system and more likely to appear as clitics and auxiliaries in a newer system.

(3) Irregularity: the older system will have more morphological irregularity than a newer system.

(4) Etymological transparency: in older systems it will be more difficult to track down the source of the bound forms.

These principles may be sound ones, but Gildea's application of them to Cariban languages is highly questionable.

One major problem in applying any such principles in the Cariban family is the lack of solid comparative work and the consequent lack of reliable reconstructed phonological and lexical forms. Gildea's attempt to argue for the nominative system being the older one on the basis of these four criteria is weak. For example, he gives no evidence in support of the statement that "suffixes associated with the nominative system are frequently very small in phonetic content". The fact is that Hixkaryana, which Gildea says is the most nominative language of them all, has many suffixes that show more phonetic content than those in Macushi, which is the most ergative of the languages. Similarly, the degree to which forms are bound to their heads is much the same in all the languages which he discusses. In a footnote Gildea acknowledges that his statements are "a quick pass over gross characteristics" and promises a more detailed reconstruction at some future time. In the present state of Cariban comparative studies, these general principles cannot tell us much about the direction of change in Cariban languages.

3.2.2 Specific claims. The more specific type of evidence Gildea adduces is the *-sa'* suffix and the constructions in which it occurs. What makes this suffix particularly relevant is that Gildea uses it as a key part of his argument for a passive construction in Panare (3f) and it is also the main focus of T. Payne's (1990) paper. Payne argues that *-sa'* has three distinct functions in Panare: (1) nominalization, (2) perfect aspect, and (3) passive. I will offer counter-arguments here in support of my claim that Panare *-sa'* has a single function that is similar to the use of its cognate form in Hixkaryana: it is a past perfective aspect nominalizer that occurs with ergatively-organized nominalizations. First, I will present the Macushi and Hixkaryana constructions.

Macushi has exactly the same form as Panare *-sa'*. It has a single basic function: to express completive-perfective aspect. The examples in (4) illustrate this function, in both main (4a,b) and subordinate (4c) clauses. Another example of its occurrence in a subordinate clause is found in (1j). It also substitutes for *-'pî* as a past tense marker in all these examples. All the other examples in (1) have the *-'pî* 'PAST' suffix in the verb forms, but the two suffixes never co-occur in the same clause. Abbott (1991) does not consider *-sa'* to be a nominalizer, but some subordinate clause constructions in which it occurs could possibly be analyzed as nominalizations.

(4) Macushi *-sa'* constructions

a. Intransitive main verb

aa-ko'man-pî'- sa'
3- remain-ITER-CMPL
'He has remained (repeatedly).'

b. Transitive main verb

yei ya'tî-yonpa-sa- i'-ya
tree cut- CONAT-CMPL-3- ERG
'He tried to cut the tree.'

c. Transitive subordinate clause

t- ekkari aretî'ka-sa'- tîu- ya yai aw-enna'po-'pî
3:REFL-food finish- CMPL-3:REFL-ERG at 3- return- PAST
'When he finished his food, he returned.'

Hixkaryana has the cognate form *-saho*, always associated with past perfective action, but occurring only as a nominalizer, never in main clauses as part of the finite verb (5a-c). Like most other nominalizations in Hixkaryana, this type is ergatively organized: the underlying S or O is the pivot of the nominalized past state or action. Thus, in (5a) it is the S of the intransitive verb that is the pivot: 'the one who danced'; in (5b and c) it is the O of the transitive verbs that is the pivot: 'the one (someone) took away' and 'the one (someone) ate'. When the verb is transitive, the underlying A subject is never overtly expressed, either as a *wya* phrase or in any other way. These nominalizations are not possessed forms and the prefix (*ɨ-, Ø-, t-* in these examples) is not a person marker; it is a generalized prefix (GP) that has several different functions and six different forms, each form occurring with a different sub-set of stems (see Derbyshire 1985:192-4, 232, for a more complete description of *-saho* and the forms and functions of the prefix). The *-saho* nominalizations function syntactically as predicate nominals (5a) or relative clauses, with or without a head noun phrase (there is a head noun in (5b), *romuru*). The function in (5c) is similar to predicate nominal, but when the overt copula occurs (*naha*), if the predicate complement is a noun it has to be denominalized (by the postposition *me*).

(5) Hixkaryana *-sah(o)* constructions

a. i- manho-saho mokɨ
GP-dance-NOMLZR that:one
'That one (was) the one who danced.'

b. n-omok-no harha romuru, Ø-a- saho
3-come-IP back my:son GP-take-NOMLZR
'My son who was taken away has returned.'

c. t- ono-sah me naha kyokyo tho
GP-eat-NOMLZR DENOM it:is parrot DEVLD
'The parrot is the one that has been eaten.'

(6) Panare -*sa'* constructions

a. Nominalization, intransitive verb (T. Payne, 430)

tẽna upa-sa' karoma-ñe paka
water dry-NOMLZR drink- NONPAST cow
'The cows drink dry (i.e. stagnant) water.'

b. Nominalization, transitive verb (T. Payne, 430)

tosen-pëkë pu'ma-sa' t- u'- se e'ñapa i'yakae-úya
big- part kill -NOMLZR IRR-give-HAB people family- DAT
'Part of the large killed (thing) the people give to
the relatives.' (nominalization on PATIENT of 'kill')

c. Perfect aspect, intransitive verb (T. Payne, 430)

wu-ch- irema-sa' yu
1- DTR-feed- PERF 1S
'I have eaten.'

d. Passive, formed from transitive verb (T. Payne, 442)

ay- a'të- sa' amën mëk- úya
2S- chase-PASS 2S:PRO 3VIS-DAT
'You are chased by him/it.'

e. Passive, formed from transitive verb (T. Payne, 440)

y-an- sa' y-úya mankowa Kandelária-po pake
3-get-PASS 1-DAT poison Candelaria-at before
'I got the poison in Candelaria.'

f. Passive, co-occurring with auxiliary (Gildea 1990)

naro y-ɨkɨtɨ-sa' këj (tëëna úya)
parrot 3-cut- PERF AUX:ANIM:PROX Teena DAT
'The parrot is cut (by Teena).'

The Panare examples (6a-e) are from T. Payne (1990); (6f), repeated from (3f), is from Gildea (1990). Payne's five examples illustrate the three functions which he attributes to -*sa'*: nominalization (6a,b), perfect aspect (6c), and passive (6d,e). The two nominalizations are similar to the Hixkaryana (5b) type of nominalization, which I describe above as having a relative clause function; in (6a) the S (*tẽna* 'water (is dry)') is the pivot on which the nominalization is formed, and in (6b) it is the O (*tosenpëkë* '(... killed) the large thing') that is the pivot. Perfect aspect also seems to be a component in these nominalizations (as in Hixkaryana), so that it has this in common with the second function of -*sa'* that Payne goes on to describe (6c). This, and all other examples of the perfect aspect function that Payne gives, are of intransitive verbs. (6c) looks very much like the Hixkaryana predicate nominal syntactic function of the -*saho* nominalization (5a), which would suggest that (6c) could mean: 'I (am) one who has eaten'. (One difference from Hixkaryana is that in the Panare construction there is a person-marking prefix *wu*- '1', which belongs to the intransitive paradigm.) All the examples Payne gives for the passive -*sa*' construction are transitive verbs (including 6d,e shown here, and also 6f, supplied by Gildea). The person-marking prefixes in these passive -*sa*' constructions (*ay*- '2S' and *y*- '3') belong to the transitive object paradigm set. (Panare has distinct intransitive and transitive prefix sets, like Hixkaryana, and unlike Macushi.) Once again, perfect aspect is a component of these "passive function" examples, just as it is of the "nominalization" and "perfect aspect" functions that Payne distinguishes. And again, nominalization, as in Hixkaryana, would appear to be a viable alternative analysis: 'You (are) the one who was chased by him/it' (6d), and 'The poison (is) the thing that was gotten by me...' (6e). Payne's reasons for regarding the (6c-e) constructions as finite main clauses rather than nominalizations are not convincing, as I will seek to show below and in sect. 3.3.1.

T. Payne recognizes that the two functions, perfect aspect and passive voice, are very close, but defends the distinction he makes on the grounds that the stative component of perfect aspect is more appropriate to intransitive verbs, whereas passive, which in his view is both stative and eventive, fits better with transitive verbs (p.440-1). In discussing (6d), he notes that the set of prefixes used on the passive verb is the transitive object set. An object marker for a passive subject is somewhat unusual and it forces him to defend a nonpromotional passive analysis, i.e., one in which the agent loses its formal subject properties, while the patient retains formal characteristics of transitive objects (p. 431). He claims that the "passive subject" has prototypical subject characteristics, but he does not say what they are.

Payne argues convincingly against a main clause ergative analysis for these constructions, but he does not satisfactorily show that the passive analysis is to be preferred to an ergatively-organized nominalization analysis. In discussing (6e) on p.441, one reason he gives for preferring the passive is that a nominalization analysis ('the poison is a gotten thing by me') "sounds extraordinarily affected". But this is surely true also of a passive interpretation ('the poison was gotten by me'). His main argument for a main clause passive analysis, however, is the discourse context in which it occurs. (6e) is the second sentence of a short response discourse, being a descriptive statement relating to a topic ('poison') which has been introduced in the first sentence. In that kind of context nominalization is an appropriate and frequently used construction in Hixkaryana and other Cariban languages. The *-saho* construction is just one of several nominalization strategies in Hixkaryana that function in this way, as a discourse backgrounding device. More information is needed about other Panare nominalizations, and whether they also function like this.

3.3 Evidence offered in support of Hypothesis 2

3.3.1 The Panare -sa' construction. I will first attempt to show that the Panare *-sa'* construction should be analyzed as a nominalization in all its uses. Both Gildea and T. Payne actually demonstrate that this is at least a feasible alternative to their hypothesis. Gildea gives an example of what he calls "the historical possessed nominalized verb as a predicate nominal": this is formally identical to the example he gives for the passive construction (my (3f), repeated as (6f)). The question is: What evidence is there that the nominalization has undergone reanalysis to passive? Payne, as we have seen, includes nominalization as one of the functions he proposes for *-sa'*. My claim is that a nominalization analysis is all that is needed to provide the most satisfying explanation for all the data that Gildea and Payne provide. This is not to deny the possibility that passives may eventually develop from these nominalizations in Panare, as has been documented for other languages (e.g. Ute, per Givón 1988).

The nominalization type I propose is the same as that found in Hixkaryana: first, from a semantic perspective, it relates to perfect and/or perfective aspect; and second, formally and syntactically, it is ergatively organized with the pivot of the nominalization being either the underlying intransitive subject or the transitive object. Such a nominalization analysis is to be preferred for the following reasons.

(1) It provides a single coherent explanation for both the intransitive and transitive uses of *-sa'*, instead of the two different functions T. Payne proposes ((6c) vs. (6d,e)), and incorporates both of these into the other function he identifies: nominalization (6a,b).

(2) The fronted nominal in (6f) follows the Panare syntactic pattern of genitive constructions (GEN-N) rather than clause constituent order: the subject of a clause normally follows the verb ((3a-e) and the following

discussion). The same fronted nominal appears in (6a) and (6b), as the genitive modifiers of the nominalized forms.

(3) The predicate nominal construction, in the context of Carib languages (and it is amply illustrated for Panare in T. Payne's work), is a more natural analysis than a passive main clause. This applies particularly to uses such as the discourse backgrounding device described above in relation to (6e). I have noted the similarity of the Panare intransitive construction in (6c) and the Hixkaryana predicate nominal in (5a); this applies equally to the Panare construction in (6d), which is formed from a transitive verb.

(4) In further support of the predicate nominal analysis, what Gildea describes as an auxiliary (*këj* in (6f)) is more naturally categorized as a third person deictic animate pronoun. Again, this class of pronouns, in this kind of function, is common in Cariban. Gildea acknowledges that *këj* is historically a deictic pronoun but claims it has been reanalyzed as an auxiliary. He does not give any convincing evidence for this. In fact, the form has all the characteristics of an uninflected pronoun, comparable to first person *yu* (6c) and second person *amën* (6d). These pronouns frequently occur in Cariban languages as the subject of predicate nominals (with or without an overt copula).

(5) Under this analysis, the *úya* 'DAT' agentive phrases (6d,e,f) are then seen as a normal way of expressing the agent by way of an oblique phrase in this kind of ergatively-organized nominalization, following a genitive-absolutive strategy. Both Gildea and T. Payne note that in Panare the agentive phrase is optional, and often omitted. In Hixkaryana it is obligatorily suppressed with the *-saho* nominalizations, though used frequently with other types of nominalization.

(6) The perfect/perfective characteristic of the *-sa'* nominalization allows for that aspectual meaning to have been historically prior to the nominalizer function. That is the diachronic sequencing that T. Payne (pp. 451-2) also suggests. I noted in sect. 3.2.2 that in Macushi the nominalizing function of *-sa'* is at best only marginally present, whereas the perfective aspect function is the dominant one, in both finite and nonfinite clauses (Abbott 1991). This would seem to be an argument supporting Macushi as manifesting the earliest of the systems, in which *-sa'* had a single, aspectual function, before going on to develop additional functions of nominalizer and passive at later stages in the other languages.

3.3.2 Nominalizations. Further support for the hypothesis that the ergative-absolutive system was the historically earlier system lies in the way nominalizations in general are formed. Languages that have lost the main clause ergative marking (e.g. Hixkaryana, Panare) use nominalization processes that consistently follow the Genitive-Absolutive strategy (where S and O are the pivots). The most straightforward explanation for such a strategy is that it results from an earlier more fully developed ergative-absolutive system. With regard to the opposite possibility, that ergative-absolutive systems have developed from genitive-absolutive nominalizations, Comrie (1978:375-6) says:

> I am not aware of any actual instances where ergativity in the verbal system arises from such an ergative nominalization construction.

So there would seem to be no precedent for what Gildea is claiming has happened in Cariban: that the absolutive-type nominalization has been the source of the later passive and ergative developments.

Evans (1985:409) describes the Kayardild (Tangkic, Australian) resultative nominalization as being ergatively organized, that is, based on the Genitive-Absolutive strategy. Kayardild has changed from earlier ergative to accusative morphology. Comparison with other Tangkic languages, which do not have the same resultative construction, suggests that in Kayardild it is an innovation that followed the change to accusativity. Evans sees no need to invoke the language's ergative ancestry to explain the construction, but regards it as just another example of the correlation between ergative-type constructions and perfective or completive aspect that is found in many languages, regardless of whether they have a history of more generally ergative systems. This may be so for Kayardild, in which there is only this one construction that needs to be explained. The Cariban case is quite different. In these languages there are many different types of nominalization that are organized on the Genitive-Absolutive basis.

3.3.3 Subordinate clauses. Closely related to the Genitive-Absolutive nominalization strategy are the facts about Cariban subordinate clauses. In some of the languages (especially Hixkaryana), this type of nominalization is the only way to express clause subordination, including relative clauses, complement clauses, and adverbial clauses. In addition in Hixkaryana, the agentive *-wya* phrase that expresses the underlying subject of a transitive verb nominalization is most naturally explained as being a relic of the ergative marker in an earlier system (represented today by the cognate form *-ya* in Macushi). One other relevant factor about Hixkaryana subordinate clauses is that the word order is different from that in main clauses: the underlying A and S normally occur before the nonfinite verb, giving SV and AOV orders (Derbyshire 1981; 1985:41). Thus, subordinate clauses in Hixkaryana retain strong vestiges of what I have postulated to be the historically earlier patterns of word order and case marking in main clauses. In contrast to Hixkaryana, Macushi has both finite and nonfinite forms of subordinate clauses (Abbott 1991) and nominalization processes are less developed. Panare appears also to have both finite and nonfinite subordinate clauses but it is moving more towards the Hixkaryana type, via what Gildea (1989) calls "less finite relative clauses". This latter development in Panare is significant for this discussion on direction of change: it shows that in at least one area of the language, Panare is moving towards Hixkaryana and not away from it (as Gildea is claiming with regard to the history of the case-marking systems – see Hypothesis 1). As we have seen, in what I consider to be nonfinite subordinate clauses, Panare uses the genitive-absolutive strategy and, optionally, an agentive phrase for the underlying transitive subject. Thus, both Hixkaryana and Panare subordination strategies support the existence of an earlier ergative system. This assumes that subordinate clauses are more conservative, and that diachronically it is generally in the main clause syntax that innovations arise (Givón 1979.99, 259; Mallinson and Blake 1981.334).

3.3.4 Hixkaryana transitive prefixes. Further support is found in the O-oriented transitive verb person-marking prefix set in Hixkaryana (2f). This could be a reflection of an earlier absolutive set, which agreed with both S and O nominals. There is still one intransitive prefix that would give further support to this: the second person *o-/a-* prefix, which is identical with the transitive O-oriented form (cf. (2d) *ayamryekno* with (2f) *ayano*). There is one language in the family, De'kwana, in which a more complete set of such absolutive markers is retained in the transitive and intransitive paradigms (first person, first person inclusive, and second person forms) (Hall 1988). In Hixkaryana, the same set of O-oriented prefixes is used to mark the possessor in possessed nouns, including the nominalizations.

3.3.5 Summary. In conclusion, there is considerable evidence from these three languages – Hixkaryana, Macushi, and Panare – to support the hypothesis of an earlier ergative-absolutive system of case marking for Cariban languages. The strength of the evidence lies in the combination of the factors we have examined. It might be possible to produce counter-arguments for any single factor, but it is difficult to argue against the cumulative effect of all of them: (1) the reasons for preferring a basically nominalizing function for Panare *-sa'*; (2) the prevalence of the genitive-absolutive strategy for nominalizations in all these languages; (3) the subordinate clause patterning of word order and case marking that reflects earlier systems, in Hixkaryana and Panare; and (4) the O-oriented transitive person markers in Hixkaryana (and De'kwana) that support the hypothesis of an earlier more complete absolutive person-marking system in Cariban.

A more general consideration is that there is nothing in these languages synchronically to suggest a three-way division of systems such as Gildea proposes: nominative-accusative, mixed, and ergative-absolutive. Hixkaryana does not have a nominative-accusative system. It is a mixed system, just like Panare (and Apalai, Galibí, Waiwai Franchetto 1990), De'kwana (Hall 1988), and no doubt many others. Hixkaryana and Panare are, in fact, remarkably similar in most areas of morphosyntax. The languages that are most consistent in their case marking are Macushi (and closely related languages such as Pemong) and Kuikuro (see sect. 4.1), and these all have an almost rigidly ergative-absolutive system. This surely must be regarded as the historically earlier system, in the absence of any strong evidence to the contrary.

There will, however, still be some lingering doubt until more serious comparative work has been done for Cariban, and we have more reliable information about Proto-Cariban reconstructed forms, especially those relating to the person-marking affixes, the nominal case-markers, and the sources of the nominalizers found in today's languages.

4 Evidence from other Cariban languages and other Amazonian language families

So far we have been considering only three Cariban languages, with occasional reference to one or two others. In this section I summarize facts that have been reported about other Amazonian languages that seem to point to ergative-absolutive systems having once been dominant in the area. I begin with another Carib language, Kuikuro, which is spoken in central Brazil, far south of the Amazon river (4.1). I then move on to present some facts on non-Cariban languages of Amazonia (4.2).

4.1 Kuikuro (Carib)

As noted in sect. 3.1 (Hypothesis 1), Gildea lists five Cariban languages as being predominantly ergative. Four of these (Macushi, Pemong, Akawaio and Arekuna) belong to the Northern Carib group (Durbin 1977), and are spoken by people who live far north of the Amazon, in Guyana, Venezuela, and the state of Roraima in the extreme north of Brazil. The other, Kuikuro, is from the Southern Group, spoken by people located on the Upper Xingu river of Central Brazil and geographically far removed from the other four. Durbin (1977) posited the split between the Northern and Southern groups as being the earliest split from Proto-Carib, perhaps as long as 4,500 years ago.

Franchetto (1990) presents Kuikuro as being close to Macushi in the comprehensiveness of its ergative system and word order patterns. It is not quite so rigidly ergative as Macushi, and Franchetto does in fact use the term "split ergativity" to describe it. But that it is solidly ergative can be seen from this summary of it (p. 407):

> ... it exhibits ergativity in three distinct morphosyntactic systems: nominal case marking, pronominal clitics and basic constituent order.

In basic declarative clauses, both independent and subordinate, the three systems are strictly ergative, and surface in ways very similar to Macushi (same word order, absolutive prefixes, and the ergative marker with a person-marking proclitic that immediately follows the verb). Even the forms of some of the person markers are the same in the two languages: *u-* '1', *i-* '3'. One striking difference is the form of the ergative marker — *héke* in Kuikuro, compared with Macushi *-ya*. It is only in what Franchetto calls 'interactive moods' (intentional and hortatory moods) that there is split ergativity: with first person subjects other than '1EXCL', there is a de-ergative marker in the verb that results in a nominative system; with second person and first person exclusive subjects either the nominative or ergative construction can be used; and with third person subjects only the ergative construction occurs.

It seems unlikely that two languages so far removed from one another, and for such a long time, as Kuikuro and Macushi could have independently developed such similar, solidly ergative systems from earlier nominative systems, while most of the other languages in the family have mixed systems.

Franchetto compares Kuikuro with four other Carib languages that she says are in central Brazil, but in fact they are all found north of the Amazon River (Apalai, Galibí, Hixkaryana and Waiwai). All four have the Hixkaryana type of cross-referencing verb agreement system. She then concludes (p. 425) with:

> ... a hypothesis concerning the diachronic development of ergativity and nominativity in these languages. This hypothesis is that nominativity in Kuikuro is a relatively recent phenomenon, and that the present system of interactive moods represents the beginning of the nominative pattern [that is more] fully developed in the other non-ergative Carib languages. In those languages the older ergative pattern is still found in dependent clauses ... This hypothesis will have to await detailed comparative and historical analysis of many Carib languages in order to be confirmed or rejected.

4.2 Non-Cariban Amazonian languages

Finally, the case for an earlier ergative case-marking system in Cariban is reinforced by the extent to which languages of other families in lowland South America still exhibit ergative-absolutive patterning. Derbyshire (1987) reports on what has been documented about these languages. Here I will briefly summarize the relevant facts pertaining to six language families.

Panoan languages of Peru have nominal ergative case marking systems (Eugene Loos, Gene and Marie Scott, and Margarethe Sparing Chavez, all personal communications). Cavineña (Tacanan), spoken in Bolivia, also has ergative case marking of nominals, and a split system for pronouns based on a person topicality hierarchy (Camp 1985). Sanuma (Yanomaman) has a predominantly ergative nominal case-marking system (Borgman 1990). Languages with split case-marking and/or cross-referencing agreement systems that include ergative-absolutive constructions are: Canela-Kraho, Kaingang, Shokleng, and Xavante (all Ge, Urban 1985), Paumarí (Arauan, Chapman and Derbyshire 1991), and Cinta Larga, Guajajara, Guaraní, and Munduruku (all Tupian, Harrison 1986). Apart from Tupí-Guaraní, little has been said on any of these language families about the direction of historical change in the case-marking and agreement systems. Harrison (1986) has supplied one hypothesis for the Ge and Tupian families of central Brazil: a change from earlier ergative systems to later more nominative systems of cross-referencing.

Jensen (1990) has given us a much more detailed account of the history of the cross-referencing systems of Tupí-Guaraní languages. (There is no nominal case marking in these languages.) Tupí-Guaraní is the largest family in the Tupí stock and has been the subject of some solid historical and comparative work (see, for example, Jensen 1984, Lemle 1971, and Rodrigues 1984/85). This has resulted in a reliable reconstruction of the cross-referencing system of Proto-Tupí-Guaraní (Jensen 1990). Following Jensen, the main features of the protosystem are: in subordinate clauses, an ergative-absolutive system; in main clauses, for intransitive verbs, a split S (active-inactive) system and for transitive verbs, a split system based on a person-agency hierarchy. This earlier patterning was preserved in the (now extinct) language Tupinambá, and is still in essence found in Guajajara (Harrison 1986) and in members of 6 of the 8 subgroups of Tupí-Guaraní proposed by Rodrigues (1984/85). Other languages in the family have deviated from the protosystem, the principal change being the replacement of the strongly absolutive system in subordinate clauses by the split systems of the main clause. One language, Urubú, has also eliminated the split system (based on the person-agency hierarchy) in main clause transitive verbs, having changed to a consistent marking of only the A referent. There have been other changes in these five languages, all in the direction of a move away from a mainly absolutive system to a more nominative-type system. Jensen (forthcoming) proposes that, at a stage prior to Proto-Tupí Guaraní, the cross-referencing system was entirely ergative-absolutive, and she suggests a pathway for the subsequent changes that took place.

Some Arawakan languages have active-nonactive agreement patterns that might also reflect earlier ergative-absolutive systems (David Payne 1981; Wise 1986).

David Payne (1990) reports a number of grammatical forms that are widespread in South American languages. He suggests that at least some of these can only be reasonably explained in terms of either a remote genetic relationship between the language families or remote language contact among speakers of the ancestors of today's languages. This would also seem to apply to the widespread nature of the ergative phenomena, which is clearly of great antiquity.

I submit that all the evidence presently available to us points to historically earlier ergative-absolutive systems in many of the language families of the Amazon area. A more definitive statement about the course of the development away from ergativity must await the results of more thorough comparative studies.

ABBREVIATIONS

ANIM	animate
AUX	auxiliary
CMPL	completive
COLL	collective
CONAT	conative
DAT	dative
DENOM	denominalizer
DEVLD	devalued
DP	distant past
DTR	detransitivizer
ERG	ergative
GP	generalized prefix
HAB	habitual
INFER	inferred
INV	invisible
IP	immediate past
IRR	irrealis
ITER	iterative
NEG	negative
NOMLZR	nominalizer
PASS	passive
PERF	perfective
PPERF	past perfective
PRO	pronoun
PROX	proximal
REFL	reflexive
S	singular
VIS	visible

REFERENCES

Abbott, Miriam. 1991. Macushi. *Handbook of Amazonian languages, vol. 3,* p. 23-160, edited by D.C. Derbyshire and G.K. Pullum. Berlin: Mouton de Gruyter.

Anderson, Stephen. 1977. On mechanisms by which languages become ergative. *Mechanisms of syntactic change,* p. 317-363, edited by Charles Li. Austin: University of Texas Press.

Blake, Barry J. 1987. The grammatical development of Australian languages. *Studies in Ergativity,* edited by R.M.W. Dixon. *Lingua* 71.179-201.

Borgman, Donald. 1990. Sanuma. *Handbook of Amazonian languages,* vol. 2, p. 17-248, edited by D.C. Derbyshire and G.K. Pullum. Berlin: Mouton de Gruyter.

Camp, Elizabeth. 1985. Split ergativity in Cavineña. *IJAL* 51.38-58.

Chapman, Shirley, and Desmond C. Derbyshire. 1991. Paumarí. *Handbook of Amazonian languages,* vol. 3, p. 161-352, edited by D.C. Derbyshire and G.K. Pullum. Berlin: Mouton de Gruyter.

Comrie, Bernard. 1978. Ergativity. *Syntactic typology,* p. 329-394, edited by W.P. Lehmann. Sussex: The Harvester Press.

Dench, Alan. 1982. The development of an accusative case marking pattern in the Ngayarda languages of Western Australia. *Australian Journal of Linguistics* 2.43-59.

Derbyshire, Desmond C. 1981. A diachronic explanation for the origin of OVS in some Carib languages. *Journal of Linguistics* 17.209-20.

____ 1985. *Hixkaryana and linguistic typology.* Dallas: Summer Institute of Linguistics and University of Texas at Arlington.

____ 1986. Topic continuity and OVS order in Hixkaryana. *Native South American discourse,* p. 237-306, edited by Joel Sherzer and Greg Urban. Berlin: Mouton de Gruyter.

____ 1987. Morphosyntactic areal characteristics of Amazonian languages. *IJAL* 53.311.26.

Dixon, Robert M.W. 1981. Grammatical reanalysis: an example of linguistic change from Warrgamay (North Queensland). *Australian Journal of Linguistics* 1.91–112.

Durbin, Marshall. 1977. The Carib language family. *Carib speaking Indians: culture, society and language,* p. 23-38, edited by Ellen Basso. Tucson: University of Arizona Press.

Estival, Dominique, and John Myhill. 1988. Formal and functional aspects of the development from passive to ergative systems. *Passive and voice,* p. 441-491, edited by Masayoshi Shibatani. Amsterdam: John Benjamins.

Evans, Nicholas. 1985. *A grammar of Kayardild.* Doctoral dissertation, Australian National University.

Franchetto, Bruna. 1990. Ergativity and nominativity in Kuikuro and other Carib languages. *Amazonian Linguistics: Studies in lowland South American languages,* p. 407-427, edited by Doris Payne. Austin: University of Texas Press.

Gildea, Spike. 1989. Simple and relative clauses in Panare. M.A. thesis, University of Oregon.

____ 1990. An explanation of ergative case-marking in Cariban languages. Paper presented at SIL summer session colloquium, University of Oregon.

Givón, T. 1979. *On understanding grammar.* New York: Academic Press.

____ 1988. Tale of two passives in Ute. *Passive and voice,* p. 417-440, edited by Masayoshi Shibatani. Amsterdam: John Benjamins.

Hall, Katherine. 1988. *The morphosyntax of discourse in De'kwana Carib.* Doctoral dissertation, Washington University.

Harrison, Carl. 1986. Verb prominence, verb initialness, ergativity and typological disharmony in Guajajara. *Handbook of Amazonian languages,* vol. 1, p. 407-439, edited by D.C. Derbyshire and G.K. Pullum.

Hodsdon, Cathy. 1976. Análise de cláusulas semânticas na língua Macusi. Serie Linguística 5.267-300. Brasília: Summer Institute of Linguistics.

Jensen, Cheryl. 1984. *O desenvolvimento histórico da língua Wayampi*. Master's thesis, Universidade Estadual de Campinas.

____ 1990. Cross-referencing changes in some Tupí-Guaraní languages. *Amazonian linguistics: Studies in lowland South American languages*, p. 117-158, edited by Doris L. Payne. Austin: University of Texas Press.

____ (forthcoming). Comparative Tupí-Guaraní morphology.

Lemle, Miriam. 1971. Internal classification of the Tupí-Guaraní linguistic family. *Tupí studies 1*, p. 107-129, edited by David Bendor-Samuel. Norman: Summer Institute of Linguistics.

Mallinson, Graham, and Barry Blake. 1981. *Language typology*. Amsterdam: North-Holland.

Payne, David. 1981. *The phonology and morphology of Axininca Campa*. Dallas: Summer Institute of Linguistics and University of Texas at Arlington.

____ 1990. Some widespread grammatical forms in South American languages. *Amazonian linguistics*: *Studies in lowland South American languages*, p. 75-87, edited by Doris L. Payne. Austin: University of Texas Press.

Payne, Thomas E. 1990. Transitivity and ergativity in Panare. *Amazonian linguistics: Studies in lowland South American languages*, p. 429-453, edited by Doris L. Payne. Austin: University of Texas Press.

Rodrigues, Aryon. 1984/85. Relações internas na família linguística tupí-guaraní. *Revista de Antropologia* 27/28:33-53. São Paulo.

Urban, Greg. 1985. Ergativity and accusativity in Shokleng (Ge). *IJAL* 51.164-87.

Wise, Mary Ruth. 1986. Grammatical characteristics of PreAndine Arawakan languages of Peru. *Handbook of Amazonian languages*, vol. 1, p. 567-642, edited by D.C. Derbyshire and G.K. Pullum. Berlin: Mouton de Gruyter.

A DOUBLE-VERB CONSTRUCTION IN MBYÁ GUARANÍ

Robert A. Dooley

1 Introduction
2 Lexical and semantic properties
  2.1 Semantics of V2 roots
  2.2 Semantics of simple V2 stems
3 Stress
4 Morphology
  4.1 The V2 suffix
  4.2 Derivational prefixes
  4.3 Agreement
  4.4 Negation
  4.5 Tense, aspect and mood
5 Syntax
  5.1 Argument sharing
  5.2 Positioning of free arguments
6 Comparison with subordinate clauses
  6.1 Adverbial subordinate clauses
  6.2 Purpose clauses
7 Comparison with verbal coordination
8 Comparison with serial verb constructions
9 Concluding discussion
Abbreviations
References

1 Introduction

In many Tupí-Guaraní languages there occurs a particular type of construction involving two verbs (Jensen 1990:124f, 137ff). The second verbs in such constructions, traditionally referred to as "gerunds" in Tupí studies (cf. Jensen 1989, Lemos Barbosa n.d., Rodrigues 1953 and 1981), have distinctive morphology and, in some of these languages, form a closed class. The present study is a description of this double-verb construction in Mbyá, a dialect of Guaraní. I refer to the two verbs in such a construction as V1 and V2, respectively, a notation commonly used in describing serial verb constructions (SVCs). The reason for this choice will be explained shortly.[1]

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[1] Comments from John Clifton, Des Derbyshire, Cheryl Jensen, Stephen Levinsohn and Steve Quakenbush have been quite helpful in different versions of this paper. All of

In Mbyá, the V1-V2 construction is quite common in natural speech. In a corpus of different types of narrative texts which total approximately 1700 sentences, it was found in slightly over 10% of all sentences. An initial example is provided by (1):[2]

(1) k^{w}atsia a-ɛtsa a-ĩ-nɨ̃
paper 1SG-see 1SG-be.located-V2
'I'm reading seated'

In (1), V1 is *aɛtsa* 'I see', while V2 is *aĩnɨ̃*, corresponding to 'seated' in the free translation. (The label "V2", besides designating the second verb in the

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its remaining shortcomings are, of course, my own. Although in general linguistics the term "gerund" refers to a verbal form used as a noun, this is not its sense in descriptions of Tupí-Guaraní languages. (An exception is Lemos Barbosa (n.d. no. 159 note), who suggests that the gerund in Tupinambá is a nominalized form; however, this is not borne out by examples cited.) Guaraní V2s cannot substitute for either nouns or adjectives. In an earlier version of Dooley 1990, I referred to V2s as "auxiliaries" or "auxiliary verbs". However, these terms are commonly understood to refer to verbs which "express the tense, aspect, mood, voice, or polarity of the verb with which they are associated" (Schachter, p. 41). Mbyá V2s do not regularly express any of these, although some have an aspectual usage (Sect. 2).

[2] Phonemic transcription is used in this paper. Mbyá has six vowels: i, ɨ, u, ɛ, a, o (~ [ɔ]). It has fourteen consonants: p, t, k, k^{w}, ʔ, ɲ ([dʑ] preceding oral vowels), m ([^{m}b] preceding oral vowels), n ([^{n}d] preceding oral vowels), ŋ ([g] preceding oral vowels), ŋ^{w} ([g^{w}] ~ [g^{w}] preceding oral vowels), ɾ, ts (~ [tʃ]), h, β (~ [w] ~ [v]). Nasalization spreads syllable-by-syllable regressively throughout (roughly) a word beginning with a stem-final syllable which is nasal (having its vowel marked with tilde), or from any of the consonants m, n, ŋ. There is also progressive spreading of nasalization from stem-final nasal syllables to certain suffixes, including the V2 suffix. Thus in (1), *aĩnɨ̃* 'seated, located', with *-ĩ* 'be located' as its stem, is pronounced [ã.ĩ.'nɨ̃] (or rather [ã^{i}.'nɨ̃] when vowel glides are taken into account). Syllables are V or CV. Glides are not discussed in this paper. Stress is discussed in Sect. 3.

construction, is used in this paper to gloss its identifying suffix.)[3]

In this paper, the Mbyá V1-V2 construction is examined from various points of view: lexico-semantic (Sect. 2), phonological (in relation to stress) (Sect. 3), morphological (Sect. 4) and syntactic (Sect. 5). It is seen to be a phrase in which V2 functions syntactically as a modifier of V1. This construction is then compared and contrasted with others in Mbyá, namely subordinate clauses (Sect. 6) and coordinate clauses (Sect. 7). At this point (Sect. 8), it is compared with SVCs as documented in languages of West Africa, the Caribbean, Southeast Asia, East Asia, Papua New Guinea and in other Austronesian languages, as well as possibly in Yuman languages of North America (Redden). To my knowledge, however, SVCs have not been described in languages of South America. The Mbyá V1-V2 construction turns out to behave like SVCs in its semantics and in some syntactic aspects. However, in four respects it is grammatically tighter than stock SVCs: (i) the V2 has an identifying suffix; (ii) it has a distinctive, reduced agreement pattern; (iii) it is required to have the same subject and, if transitive, the same object as V1; (iv) the construction is virtually impervious to the occurrence of arguments between V1 and V2.

2 Lexical and semantic properties

In a V1-V2 construction in Mbyá, V1 can be any predicate that can fill a "main verb" position in a clause. The class of V2s, however, is a restricted one. Whereas in certain other Tupí-Guaraní languages the formation of V2s is reported to be a fully productive process (Rodrigues 1953 and Loraine Bridgeman, p.c.), V2s in Mbyá comprise a closed class.

2.1 Semantics of V2 roots

The class of V2 roots involve seven semantic areas. Five of these areas are represented by a single verb root from which V2s are formed; the other two areas have two verb roots each. These semantic areas and their associated roots are listed in Table 1:

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[3] The abbreviations used in this paper are listed under Abbreviations at the end.

Semantic area	Verb root(s)
'stand; be in an upright position'	-ʔã
'sit; be located'	-ĩ
'be, exist; walk around'	-iko, -ɛko
'be, exist (plural only)'	-kʷa
'go'	-a ~ -o
'come'	-ɲu ~ -u
'lie; be in a prone position'	-ɲu ~ -u, -nõ

Table 1: Semantic areas and roots of Mbyá V2s

The two semantic areas with multiple roots are: 'be, exist; walk around' with roots *-iko* 'be' and *-ɛko* 'life'; and 'lie; be in a prone position' with roots *-ɲu ~ -u* 'lie' and *-nõ* 'lay'. (In addition, some of the roots vary in form according to the person and number of the subject.) All seven semantic areas in Table 1 have to do with motion, position, or being. With the exception of *-ɲu ~ -u* in the last line, all of the roots can also occur in main verbs (see Sect 4.3 for agreement):

(2) a-ʔã tsɛ-ɾ-o pɨ
1SG-stand 1SG-EP-house in
'I am standing in my house.'

(3) a-mo-ʔã tsɛ-ɾ-aʔɨ
1SG-CAUS-stand 1SG-EP-son
'I make my son stand up.'

(4) a-ĩ t-ɛna pɨ
1SG-sit/be.located NPOSSD-place in
'I am sitting on a bench.'

(5) a-ĩ tsɛ-ɾ-o pɨ
1SG-sit/be.located 1SG-EP-house in
'I am in my house.'

(6) a-mo-ĩ aɾoi ʔoɲa pɨ
1SG-CAUS-be.located rice pan in
'I put rice in a pan.'

(7) a-iko aĩi pɛβɛ
1SG-be now until
'I am alive until the present.'

(8) a-iko tsɛ-ɾ-ɛko-a ɾupi
1SG-be 1SG-EP-life-NR along
'I am walking around my place of residence.'

(9) ɲanɛ-ɾ-u ɲanɛ-mo-**iŋo** aɾakaʔɛ
1+2-EP-father 1+2-CAUS-be DP
'Our Father created us.'

In (9) is found *-iŋo,* the variant of *-iko* which occurs with the causative prefix *mo-*.

(10) ɲanɛ-**kʷ**ai poɾã aɨ̃
1+2-be.PL well now
'We are getting along well now.'

In (10), the final vowel *i* of the verb does not occur when the root is followed by certain suffixes, such as *-βɛ* in (11).

(11) aβa-kʷɛ o-**kʷ**a-βɛ oo pɨ
man-COLL 3-be.PL-more house in
'The men are still in the house.'

(12) a-a βaʔɛ-ɾã momɨɾɨ
1SG-go REL-FUT far
'I will go far away.'

(13) ɛɾɛ-o βaʔɛ-rã momɨrɨ
2SG-go REL-FUT far
'You will go far away.'

(14) a-mo-no-uka tsɛ-ɾ-aʔɨ
1SG-CAUS-go-CAUS 1SG-EP-son
'I send my son.'

In (14) is found *-no,* the variant of *-a* ~ *-o* 'go' that occurs with the causative prefix. The causative construction with this verb idiosyncratically includes the transitive causative suffix *-uka* as well.

(15) a-ɲu tsɛ-ɾ-o ŋʷi
1SG-come 1SG-EP-house from
'I came from my house.'

(16) o-u ŋ-oo ŋʷi
3-come 3.REFL-house from
'He came from his house.'

(17) a-mo-u tsɛ-ɾ-aʔɨ apɨ
1SG-CAUS-come 1SG-EP-son here
'I'm having my son come here.'

(18) a-ɲɛ-nõ tsɛ-ɾ-upa pɨ
1SG-REFL-lay 1SG-EP-bed in
'I lie (lay myself) down on my bed.'

2.2 Semantics of simple V2 stems

When these same roots occur in V2s instead of main verbs, they are often seen to have connotations or interpretations that are only peripherally related to their meaning as main verbs. This is illustrated in the following examples, in which the V2 stems include a suffix glossed 'V2', which is discussed in Sect. 4.1.

On one hand, the V2 *-?ãmɨ* often has the core meaning 'to be standing':

(19) a-pu?ã **a-?ã-mɨ**
1SG-stand.up 1SG-stand-V2
'I stood up and remained on my feet.'

It can also convey a connotation of being ill at ease:

(20) a-tsĩ-ma **a-?ã-mɨ**
1SG-embarassed-all 1SG-stand-V2
'I was standing around completely embarassed.'

The speaker must actually be standing in order to utter (20), but it is also true that being in a standing position is associated with feeling conspicuous and ill at ease.

The V2 stem *-ĩnɨ* often simply means that an action was performed in a seated position:

(21) kʷatsia a-ɛtsa **a-ĩ-nɨ**
paper 1SG-see 1SG-be.located-V2
'I was reading seated.'

But in an extended sense, it can mean that the action of V1 is uninterrupted:

(22) o-o **o-ĩ-nɨ** t-apɛ ɾupi
3-go 3-be.located-V2 NPOSSD-path along
'He kept going along the path.'

In contrast with (20), the position of the speaker need not have been seated in order to say (22); the expected interpretation, in fact, would be that he was walking. The element of meaning which is abstracted away from being in a seated position is uninterruptedness: one typically remains seated for an extended period of time and in a single location.

The stem *-ikoβɨ* is generally used to indicate that the action takes place over a long period of time, relative to the given circumstances:

(23) a-maʔɛ̃ a-**iko-βɨ** hɛtsɛ
1SG-look 1SG-be-V2 3.ABL
'I looked and looked at him.'

Depending on the particular V1 and the context, *-ikoβɨ* can convey habituality of state or action:

(24) tsɛ-ɾ-ɛtsãᶤ a-**iko-βɨ**
1SG-EP-healthy 1SG-be-V2
'I'm keeping healthy.'

The plural stem *-kʷapɨ* means that the meaning of V1 applies uniformly to the group referred to by the grammatical subject:

(25) oɾo-βɨ-pa oɾo-**kʷa-pɨ**
1+3-rise-all 1+3-be.PL-V2
'We all got up well, with no exceptions.'

There is a frequent collocation of this V2 with the suffix *-pa* 'all' on V1, as seen in (25). Sometimes the suffix *-pɨ* is omitted from this V2:

(26) oɾo-βɨ-pa oɾo-**kʷa**
1+3-rise-all 1+3-be.PL
'We all got up well, with no exceptions.'

The V2 stem *-oβɨ* ~ *-aβɨ* 'go' does not appear to involve extended meaning. The action of going may either be simultaneous with the action of V1 (27) or immediately after it (28):

(27) iɲ-aɨβu **o-βɨ**
3-speech 3.go-V2
'He went off talking.'

(28) o-motɨ-pa **o-βɨ**
3-close-all 3.go-V2
'He closed up everything and left.'

Similarly, the forms *-ɲuβɨ* ~ *-uβɨ* retain the meaning 'come':

(29) a-ɲɛβɨ a-**ɲu-βɨ**
1SG-return 1SG-come-V2
'I came back.'

In (29), V1 and V2 describe the same action. In (30), they describe two different actions which are nevertheless presented as a single event:

(30) o-ɲapukaɨ o-u-βɨ
3-shout 3-come-V2
'He came shouting/He shouted as he came.'

The two stems *-ɲupɨ ~ -upɨ* and *-nõŋɨ* do not depart from their respective core meanings 'lie' and 'lay':

(31) tsɛ-ɾ-aʔɨ o-kɛ o-u-pɨ t-upa ɾupi
1SG-EP-son 3-sleep 3-lie-V2 NPOSSD-bed along
'My son was sleeping, lying in the bed.'

(32) tsɛ-r-aʔɨ a-mo-ŋɛ i-nõ-ŋɨ t-upa ɾupi
1SG-EP-son 1SG-CAUS-sleep 3-lay-V2 NPOSSD-bed along
'I put put my son to sleep, making him lie down in the bed.'

In summary, then, V2s can furnish the following types of semantic information:

a. position or motion, according to the basic meaning of the root:
    1) describing the same action as V1 (19, 29, 31, 32);
    2) describing an action simultaneous with that of V1 (21, 27, 30);
    3) describing an action that follows immediately after that of V1, but within the same complex event (28);
b. aspectual information (22, 23, 24);
c. information of other kinds about the event or its participants (20, 25).

In each case, the V1-V2 construction presents what is to be interpreted as a single event. Information contributed by V2 about the event is commonly seen to supplement that given by V1.[4]

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[4] Although V1 and V2 often describe the same event, there seems to be a syntactic or perhaps stylistic constraint which prevents the same root from being used for both verbs. Thus, it is considered incorrect (ungrammatical or bad style) to say:

* moka a-ɾ-u h-ɛɾ-u-βɨ
gun 1SG-COM-come 3-COM-come-V2
'I brought the gun with me when I came.'

3 Stress

The V2 in Mbyá does not receive primary stress, but often has a secondary stress on the final syllable. These two levels of stress are indicated in (33) by " and ', respectively:

(33) a-βɨ"?a a-iko-'βɨ
1SG-be.happy 1SG-be-V2
'I live happy.'

This stress pattern, when considered in the context of primary stress assignment in Mbyá, constitutes phonological evidence that V2s are within the same phrasal constituent as V1.

Stress assignment in Mbyá works as follows. Roots have at most one syllable which can accept primary stress; for most, this is the final syllable. Grammatical morphemes typically cannot accept primary stress at all; enclitics, such as postpositions and subordinating conjunctions, are typically of this type. The stress group in Mbyá is of the type that, for French, Hyman (p. 205) refers to as a "sense group"; in Mbyá, it generally corresponds to a phrase which is a clause constituent. Within the stress group, primary stress falls on the last syllable that can accept it; secondary stress often is heard on alternate syllables counting back from the primary stress, as well as on certain multisyllabic enclitics that follow the primary stress.

This stress pattern can be seen in the following series of examples (considered as isolated utterances), which use the same indicators for primary and secondary stress that were seen in (33):

(34)	ta"mõⁱ	'his/her grandfather'
	'tsɛɾa"mõⁱ	'my grandfather'
	tsɛ'ɾa?ɨ'tsɨ ɾa"mõⁱ	'my wife's grandfather'
	tsɛ'ɾa?ɨ'tsɨ ɾa"mõⁱ ɾɛβɛ	'with my wife's grandfather'
	tsɛ'ɾa?ɨ'tsɨ ɾa"mõⁱ ɾupi'βɛ	'along with my wife's grandfather

In (34), whereas the postposition *ɾɛβɛ* 'with' does not typically accept even secondary stress, the postposition *ɾupiβɛ* 'along with, following the lead of' does commonly accept secondary stress on its final syllable.

A comparison of (33) with (34) shows that the stress pattern on the V2 is like that on the postposition *ɾupiβɛ*. That is, a V2 is in the same stress group as V1. Since other stress groups typically correspond to phrasal clause constituents, the V1-V2 construction behaves phonologically like a phrase.

4 Morphology

The present section describes different aspects of V2 morphology: the V2 suffix, derivational prefixes, agreement, negation and indicators of tense, aspect and especially mood. As illustrated in this paper, Mbyá is a language with a moderately high "index of synthesis", to use Comrie's term (pp. 46ff). That is, it is fairly rich in both derivational and inflectional morphology. Grammatical relations are head-marked: verbs show agreement with subject and object, and there is no case marking for nouns.

4.1 The V2 suffix

All full V2s in Mbyá have the suffix *-Cɨ*, where *C* is one of the consonants *β, p, m, ŋ, n*.[5] This suffix derives from elements in the proto-language as follows.

In Proto-Tupí-Guaraní, the V2 suffix took the following forms (Jensen 1989:102, 1990:124):

*-a / following a consonant
*-ta / following the a diphthong of the form Vɨ
*-'aβo / elsewhere

The following morphophonemic rules applied in the proto-language (Jensen 1989, Rodrigues 1981):

a. the *a* of **-aβo* assimilated to low vowels:
 *-co 'go' + *-abo —> *-cooβo
b. the *β* of **-aβo* nasalized to *m* following nasal stems:
 *-manõ 'die' + *-aβo —> *-manõoβo —> *-manõomo
c. before **-a*, stem final *r* dropped and *b* became *p*:
 *-potar 'want' + *-a —> *-potaa
 *-moneb 'put' + *-a —> *-monepa
 *-jub 'lie; be in a prone position' + *-a —> *-jupa

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[5] The word "full" refers to the fact that the V2 suffix can at times be optionally omitted, as in (26). Conditions that give rise to this omission are not known. The omission is, however, quite rare.

d. the stem-final vowel dropped when homorganic with the initial vowel of the suffix:
*-co 'go' + *-aβo —> *-cooβo —> *-coβo
*-potar 'want' + *-a —> *-potaa —> *-pota
e. stem-final high vowel became asyllabic:
*-apiti 'kill' + *-aβo —> _*-apitiaβo_

Then, as Mbyá Guaraní developed from proto-Tupí-Guaraní, the following vowel changes took place (Jensen, p.c.):

f. post-stressed _a_ (of _*-a_) became _ɨ_:
*-jupa 'lying; being in a prone position' —> -ɲupɨ
(ɲ is the realization of Mbyá of *j)
g. post-stressed _o_ (of _*-aβo_) became _ɨ_:
*-coβo 'going' —> -coβɨ

The derivation of each of the V2 stems, listed according to semantic areas from Table 1, can therefore be summarized as follows:

'stand; be in an upright position'
*-ʔam + *-a —> *-ʔama —> -ʔãmɨ

'sit; be located'
*-in + *-a —> *-ina —> -ĩnɨ

'be, exist; walk around'
*-iko + *-aβo —> -iko-oβo —> *-ikoβo —> -ikoβɨ
*-eko + *-aβo —> -eko-oβo —> *-ekoβo —> -ekoβɨ

'be, exist (plural only)'
*-kuβ + *-a —> -kuβa —> *-kupa —> -kupɨ
—> (innovation) -kʷapɨ

'go'
*-co + *-aβo —> -co-oβo —> *-coβo —> -cobɨ
—> (innovation) -oβɨ (~ -aβɨ)

'come'
*-jur + *-a —> -jura —> *-jua —> -ɲuɨ
—> (innovation) -ɲuβɨ (~ -uβɨ)

'lie; be in a prone position'
*-jub + *-a —> *-jupa —> -ɲupɨ ~ -upɨ
*-noŋ + *-a —> *-noŋa —> -nõŋɨ

Thus, the variants of the V2 suffix in Mbyá derive both from the suffix in the proto-language and final consonants of preceding roots. From the innovative derivation of this suffix in the case of *-ɲuβɨ ~ -uβɨ* 'coming', *-βɨ* is taken to be its basic form.[6]

4.2 Derivational prefixes

The stems of the seven V2s presented thus far can accept derivational prefixes, resulting in further stems. These derivational prefixes are *mo-* 'CAUSATIVE', *ɛro-* (*ɛro- ~ ɛr- ~ ɛno- ~ ɛn- ~ ŋwɛro- ~ ŋwɛr- ~ ŋwɛno- ~ ŋwɛn-*) 'COMITATIVE'[7], and *ɲo-* 'RECIPROCAL'. The following forms result (hyphens are here omitted to save space):

root	simple stem	CAUS-stem	COM-stem	RECIP-COM-stem
-ʔã	ʔãmɨ	moʔãmɨ	ɛnoʔãmɨ	ɲoŋʷɛnoʔãmɨ
ĩ	ĩnɨ	moĩnɨ	ɛnoĩnɨ	ɲoŋʷɛnoĩnɨ
iko, ɛko	ikoβɨ, ɛkoβɨ	moiŋoβɨ	ɛrɛkoβɨ	ɲoŋʷɛrɛkoβɨ
kʷa	kʷapɨ	mokʷapɨ	ɛrokʷapɨ	ɲoŋʷɛrokʷapɨ
a ~ o	aβɨ ~ oβɨ	monoβɨ	ɛraβɨ	ɲoŋʷɛraβɨ
ɲu ~ u	ɲuβɨ ~ uβɨ	mouβɨ	ɛruβɨ	ɲoŋʷɛruβɨ
ɲu ~ u, nõ	ɲupɨ ~ upɨ	nõŋɨ	ɛrupɨ	ɲoŋʷɛrupɨ

Table 2. V2 roots and stems, including derived stems

As noted in Sect. 2.1, there are two semantic areas having two roots each:

'be, exist; walk around': *-iko* 'be', *-ɛko* 'life'
'lie; be in a prone position': *-ɲu ~ -u* 'lie', *-nõ* 'lay'.

For each of these two semantic areas, the two verbs have a division of labor in producing derived forms. For example, in the "COM-stem" column, *-ɛrɛkoβɨ* occurs instead of ** –ɛroikoβɨ*; similarly, in the "CAUS-stem" column, *-nõŋɨ* occurs instead of ** -moupɨ*. Actually, *-nõŋɨ* does not have the causative morpheme, nor does it have derivational prefixes, only the root *-nõ* 'lay' and the V2 suffix *-ŋɨ*. But since this root is transitive, it is semantically parallel to causative stems in the same column. Stems in the "COM-stem" column are also transitive, while those in the "simple stem" and "RECIP-COM-stem" columns are intransitive.

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[6] The form of the suffix varies among Guaraní languages. In Old Guaraní and Paraguayan Guaraní, the basic form appears to be *-βo* (Montoya 1876, Gregores and Suarez 1967:178ff). In Kaiwa, as in Mbyá, the basic form is *-βɨ*. In Chiriguano, the suffix does not appear to be used (Dietrich 1986, Jensen 1990.)

[7] Ina comitative verb, the subject causes the direct object to perform an action while the subjet also performs that action.

Examples of the derived forms are as follows (see Sect 4.3 for agreement):

(35) tsɛ-ɾ-aʔɨ a-mo-puʔã i-**mo-ʔã-mɨ**
1SG-EP-son 1SG-CAUS-rise 3-CAUS-stand-V2
'I made my son stand up.'

(36) a-ɲo-pɨ h-**ɛno-ʔã-mɨ** tsɛ-ɾ-aʔɨ
1SG-other-grab 3-COM-stand-V2 1SG-EP-son
'I picked up my son and stood up, making him stand up too.'

(37) tuɲa-ʔi guaimi-ʔi ɾɛβɛ
old.man-DIMIN old.woman-DIMIN with

o-puʔã **ɲo-ŋwɛno-ʔã-mɨ**
3-rise RECIP-COM-stand-V2

'The old man and the old lady got up together, helping each other.'

(38) tsɛ-ɾ-u a-mo-ŋaɾu i-**mo-Ĩ-nɨ**
1SG-EP-father 1SG-CAUS-eat 3-CAUS-be.located-V2
'I made my father sit down and eat.'

(39) moka a-ɾ-aa h-**ɛno-Ĩ-nɨ**
rifle 1SG-COM-go 3-COM-be.located-V2
'I took my rifle and went off uninterruptedly.'

(40) ɲo-ŋʷɛɾ-aa-pa **ɲo-ŋwɛno-Ĩ-nɨ**
RECIP-COM-go-all RECIP-COM-be.located-V2
'They all accompanied each other and went off together uninterruptedly.'

(In (40), the expected third person subject prefixes do not occur. Among Guaraní languages, Mbyá is idiosyncratic in not permitting third person agreement on any word which begins with *ɲo-* 'RECIPROCAL'.)

(41) tsɛ-ɾ-u tsɛ-mo-maʔɛ-apo i-**mo-iŋo-βɨ**
1SG-EP-father 1SG-CAUS-thing-do 3-CAUS-be-V2
'My father always made me work.'

(42) kʷatsia a-ɲopɨ h-**ɛɾ-ɛko-βɨ**
paper 1SG-take 3-COM-life-V2
'I got the paper and had it with me.'

The stem *-ɛɾɛko* in (42) generally means 'attend to, take care of'. With animate objects it is often interpreted as 'guide'; especially with inanimate objects, it often is simply interpreted 'have'.

(43) tuɲa-ʔi guaimĩ-ʔi ɾɛβɛ o-puʔã **ɲo-ŋwɛɾ-**
old.man-DIMIN old.woman-DIMIN with 3-rise RECIP-COM-

ɛko-βɨ
life-V2

'The old man and (lit., with) the old lady got up and each helped the other to walk away.'

(44) a-mo-ŋʷapɨ-pa i-**mo-kʷa-pɨ**
1SG-CAUS-sit-all 3-CAUS-be.PL-V2
'I made all of them sit down without exception.'

(45) tsɛ-ɾ-o pɨ-ŋʷa kʷɛɾɨ a-ɾ-u h-**ɛɾo-kʷa-pɨ**
1SG-EP-house in-NR COLL 1SG-COM-come 3-COM-be.PL-V2
'I brought all of the inhabitants of my house as a group.'

(46) o-kaɾu-pa **ɲo-ŋʷɛɾo-kʷa-pɨ**
3-eat-all RECIP-COM-be.PL-V2
'They all accompanied each other eating.'

(47) ɲaŋʷa a-mo-nɨ^{ɨ} i-**mo-no-βɨ**
dog 1SG-CAUS-surprise 3-CAUS-go-V2
'I scared the dog and made him leave.'

(48) moka a-ɲopɨ h-**ɛɾ-a-βɨ**
rifle 1SG-get 3-COM-go-V2
'I got the rifle and took it with me.'

(49) o-ŋʷata **ɲo-ŋwɛɾ-a-βɨ**
3-travel RECIP-COM-go-V2
'They accompanied each other as they travelled.'

(50) ɲukɨ o-mo-atsa i-**mo-u-βɨ** tsɛ-βɨ
salt 3-CAUS-pass 3-CAUS-come-V2 1SG-DAT
'He passed the salt to me.'

(51) moka a-ɲopɨ h-**ɛɾ-u-βɨ**
rifle 1SG-get 3-COM-come-V2
'I got the rifle and brought it with me.'

(52) o-ɲɛβɨ-pa **ɲo-ŋwɛɾ-u-βɨ**
3-return-all RECIP-COM-come-V2
'They all accompanied each other returning.'

(53) kɨɾĩ-ʔi βaʔɛ a-mo-ŋɛ **i-nõ-ŋɨ**
small-DIMIN REL 1SG-CAUS-sleep 3-lay-V2
'I made the child lie down and go to sleep.'

(54) tsɛ-ɾ-ovaⁱ-ŋʷa tsɛ-ɾ-ɛro-ʔa **h-ɛɾ-u-pɨ**
1SG-EP-other.side-NR 1SG-EP-COM-fall 3-COM-lie-V2
'My adversary grabbed me and made me fall down flat.'

(55) ɲo-ɛ-ŋʷa kwɛɾɨ ɲo-ŋwɛro-ʔa **ɲo-ŋwɛɾ-u-pɨ**
RECIP-ABL-NR COLL RECIP-COM-fall RECIP-COM-lie-V2
'The brothers grabbed each other and made each other fall down flat.'

With the exception of *-ɛɾɛko* as explained in (42), V2 stems with derivational prefixes are compositional in meaning; that is, their meanings are the sum of the meanings of their derivational prefixes and their V2 stems (for the latter, see Sect. 2).

4.3 Agreement

In order to understand the pattern of agreement marking in V2s, it is necessary to know something of agreement in Mbyá main verbs, a category which includes V1s in a V1-V2 construction.

With main verbs, agreement follows an active-nonactive pattern, which is described as follows:

(56) a. Intransitive verbs are divided into two lexical classes, here referred to as active and nonactive according to the agreement paradigm they take. Active verbs generally designate events, while nonactive verbs generally designate states. This semantic description, basically having to do with aspect (Mithun), has apparent exceptions, however, so it is better to speak in terms of lexical classes.

b. Subjects of transitive and active intransitive verbs are indicated by the following set of agreement prefixes, here designated ACTIVE: *a-* '1SG', *ɛɾɛ-* '2SG', *o-* '3', *ɲa-* '1+2', *oɾo-* '1+3', and *pɛ-* '2PL'. (The prefix *oɾo-* is also used to indicate first person subject and second person object with transitive verbs.)

c. Objects of transitive verbs and subjects of nonactive intransitive verbs are signalled by the following NONACTIVE agreement prefixes: *tsɛ-* '1SG', *nɛ-* '2SG', *(ʔ)i(ɲ)- ~ ɲ- ~ h-* '3', *ɲanɛ-* '1+2', *orɛ-* '1+3', and *pɛnɛ-* '2PL'. This set is also used to indicate possession in noun phrases. Free pronouns derive from these forms via vowel gemination.

Main verbs show the same agreement patterns in subordinate as well as main clauses.

It would almost be correct to say that all transitive main verbs show both subject and object agreement. However, there are two important exceptions. First, transitive verbs also have two lexical classes: those in which third person object agreement cooccurs with subject agreement (*a-i-kɨtsĩ* (1SG-3-cut) 'I cut him/her/it'), and those in which it does not (*a-ɛtsa* (1SG-see) 'I saw him/her/it'). Second, no transitive verb shows subject agreement when the object is first person and the subject is second or third person *(tsɛ-kɨtsĩ* (1SG-cut) 'you/he/she/it cut me'), or when the object is second person and the subject is third person *(nɛ-kɨtsĩ* (2SG-cut) 'he/she/it cut you').

With V2s, the agreement pattern is somewhat reduced in comparison with that of main verbs. Further, V2 agreement shows ergative-absolutive as well as active-nonactive organization. In particular, V2s agree only with the absolutive argument (with two exceptions to be noted shortly): intransitive V2s show subject agreement (from the active paradigm, since all intransitive V2 stems are lexically active), while transitive object agreement is from the nonactive paradigm. Examples (57) and (58) show intransitive V2s inflected for subject agreement:

(57) ɲa-puʔã **ɲa**-ʔã-mɨ
1+2-rise 1+2-stand-V2
'We rose and stood up.'

(58) ɲa-ŋʷata **ɲa**-ɲo-ŋwɛr-a-βɨ
1+2-travel 1+2-RECIP-COM-go-V2
'We accompanied each other as we travelled.'

With transitive V2s from the column "COM-stem" of Table 2, there is an object prefix. (By a general rule of the language, the epenthetic segment *r* is inserted between a nonactive prefix and the comitative prefix *ɛro- ~ ɛr-*.)

(59) tsɛ-ɾ-u tsɛ-ɲopɨ tsɛ-ɾ-ɛɾ-a-βɨ
1SG-EP-father 1SG-get 1SG-EP-COM-go-V2
'My father got me and took me with him.'

One exception to absolutive agreement of V2s is the occurrence of the portmanteau prefix *oɾo-*, which indicates first person subject and second person object:

(60) oɾo-ɲou oɾo-ŋwɛɾ-u-βɨ
1S.2O-find 1S.2O-COM-come-V2
'I found you and brought you back with me.'

That is, by reason of this portmanteau prefix, subject as well as object agreement is indicated when first and second persons are involved as subject and object, respectively.

The second exception to absolutive agreement of V2s is that for transitive verbs in the column labelled "CAUS-stem" of Table 2, there is no real agreement at all: the third person prefix from the nonactive paradigm occurs not only with third person objects, as in (35), (38), (47) and (50), but first and second person objects as well:

(61) tsɛ-ɾ-u tsɛ-mo-pu?ã ɨ-mo-?ã-mɨ
1SG-EP-father 1SG-CAUS-rise 3-CAUS-stand-V2
'My father made me rise and stand up.'

(62) aβa nɛ-mo-ŋaɾu ɨ-mo-ɨ̃-nɨ
man 2SG-CAUS-eat 3-CAUS-be.located-V2
'The man made you sit down and eat.'

The reduced agreement pattern of V2s indicates that they are syntactically dependent on V1. This is further discussed in Sect. 5.

4.4 Negation

Verbal negation in Mbyá is indicated by means of an ambifix consisting of the prefix *na-* (*n-* preceding vowels) and the offglide suffix *-i*. While the prefix occurs at the beginning of the main verb, the suffix can occur at different points in the verb complex, in such a way that the material between the prefix and the suffix is interpreted as the scope of the negation. First consider examples (63-65), which do not involve any V2s, but do involve an adverbial modifier:

(63) aβa o-ma?ɛ-apo ɛtɛ
man 3-thing-do really
'The man really works.'

(64) aβa n-o-ma?ɛ-apo-ɨ ɛtɛ
man NEG-3-thing-do-NEG really
'The man is truly not working.'

(65) aβa n-o-ma?ɛ-apo ɛtɛ-ɨ
man NEG-3-thing-do really-NEG
'The man is not working in a real sense.'

The positive statement (63) can be negated in two ways: the first, shown in (64), indicates that only the verb *oma?ɛapo* 'he works' is within the scope of the negation; the second way, shown in (65), includes not only the verb but also the adverbial modifier *ɛtɛ* 'really' within the scope of the negation. This difference is indicated by the free translations.

In a V1-V2 construction, negation works exactly the same way. Consider examples (66)-(68):

(66) aβa o-ma?ɛ-apo o-iko-βɨ
man 3-thing-do 3-be-V2
'The man is working (over an extended period of time).'

(67) aβa n-o-ma?ɛ-apo-ɨ o-iko-βɨ
man NEG-3-thing-do-NEG 3-be-V2
'It is not true that the man is working (and this description of him has been the case over an extended period of time).'

(68) aβa n-o-ma?ɛ-apo o-iko-βɨ-ɨ
man NEG-3-thing-do 3-be-V2-NEG
'It is not true that the man has been working for an extended period of time.'

(68) could be true if the man had just recently begun working, but (67) could not.

Thus the scope of verbal negation is determined for V1-V2 constructions in the same way as for verb-adverb constructions. In particular, although negation does not always apply to the entire V1-V2 construction, neither does it show up clausal boundaries between V1 and V2.

4.5 Tense, aspect and mood

Verbs in Guaraní are not inflected for tense or aspect. There are, however, certain words or enclitics which convey temporal information and which commonly occur immediately following the main verb. In a V1-V2 construction, they typically occur between the two verbs:

(69) a-ɲo-pou βaʔɛ-ɾã a-iko-βɨ
1SG-other-visit thing-FUT 1SG-be-V2
'I will go about visiting people.'

In (69), *βaʔɛɾã* is used as a marker of future tense. In the same position occur elements such as *kaɾamoae* 'past tense, within the experience of the speaker' and *ta mã* 'to be about to (do something)'. The latter is a marker of aspect rather than tense.

Whether such overt markers actually occur, or whether tense/aspect information is inferred from the context, the V1-V2 construction is interpreted as having a single tense/aspect. This is consistent with the fact that the construction is interpreted as telling of a single (possibly complex) event (Sect. 2).

The same is true of the interpretation of mood, but there is more morphological evidence for it. For example, there is a distinctive agreement prefix, *ɛ-*, for the second person singular imperative in the active paradigm. This prefix occurs with V2 as well as V1:

(70) ɛ-ɲo-pou ɛ-iko-βɨ
2SF.IMP-other-visit 2SG.IMP-be-V2
'Go about visiting people.'

That is, the imperative mood is indicated morphologically on both verbs.

The optative mood has a prefix *ta-* ~ *t-* which precedes the regular agreement prefixes. When a V1-V2 construction is in the optative, sometimes only V1 has this prefix (71), and sometimes both verbs manifest it (72):

(71) kɨɾĩ-gwɛ t-o-βɨ-pa o-kʷa-pɨ
small-COLL OPT-3-arise-all 3-be.PL-V2
'May all of the children get up (i.e., have good health).'

(72) kɨɾĩ-gwɛ t-o-βɨ-pa t-o-kʷa-pɨ
small-COLL OPT-3-arise-all OPT-3-be.PL-V2
'May all of the children get up (i.e., have good health).'

Whether or not the optative prefix occurs on V2, the entire construction is interpreted as optative; there is no difference in meaning between (71) and (72). Thus, the V1-V2 construction as a whole has a single interpretation of tense, aspect and mood.

5 Syntax

The V1-V2 construction in Mbyá can be described as V1 (V2), where V1 is what I referred to as a main verb in Sect. 4.3, and V2 is an optional element. V1 can have a complex structure, including modifiers, valence-changing suffixes, and postposed verb stems, the description of which is beyond the scope of the present paper (see the introduction to Dooley 1990). The present study focuses on evidence that in this construction, V1 is the syntactic head and V2 is a dependent; in fact, it is a modifier of V1. The entire construction is on the phrasal level.

Evidence for this view is of different types. Lexically, the fact that V2 is a closed class (Sect. 2) is of interest, since "the modifier position ... can be restricted to a specific subcategory of lexemes, while the head position is fully open, ... subject only to constraints following from the semantics of the construction and the participating constituents" (Zwicky, 2f). Phonologically, the V1-V2 construction shows the stress assignment pattern of a phrasal clause constituent (Sect. 3). Morphologically, V2 behaves like an adverbial modifier in regard to negation (Sect. 4.4), and the construction has a uniform interpretation as regards tense, aspect and mood (Sect. 4.5).

In the remainder of this section, two topics are presented which further support the proposed analysis of the V1-V2 construction: argument sharing and positioning of free arguments.

5.1 Argument sharing

In a sample of 176 V1-V2 constructions in Mbyá, the following was found:

both V1 and V2 transitive	11
V1 transitive and V2 intransitive	57
both V1 and V2 intransitive	108
Total	176

There are no clear examples in my data of an intransitive V1 with a transitive V2. All examples presented thus far in this paper are either intransitive-intransitive or transitive-transitive. (73) and (74) illustrate the transitive-intransitive variety:

(73) pɛɾata o-gata-pa o-iko-βɨ
money 3-spend-all 3-be-V2
'He went around spending all the money.'

(74) haʔe nuŋa pɛ-i-kʷaa pɛ-kʷa-pɨ
3.ANA sort.of.thing 2PL-3-know 2PL-be.PL-V2
'All of you without exception know that sort of thing.'

Further, V1 and V2 have the same subject and, if both are transitive, the same object as well. The latter is illustrated in (35), (36), (38), (39), (41), (42), (44), (45), etc. As a consequence, V2s in Mbyá do not add new arguments; their arguments are the same as those of V1.

If V2 is indeed a modifier of V1, then this type of argument sharing can be fairly described as agreement.

5.2 Positioning of free arguments

In Mbyá, it is often the case that verbal arguments occur neither in free form, as NPs, nor incorporated with the verb, but only as agreement prefixes. (More precisely, arguments are indicated on the most fundamental level by grammatical relations inherent in the verb, aided by whatever clues there may be from agreement, context, etc.) Of V1-V2 constructions with transitive V1s, approximately half do not have free objects.[8]

The free objects which do occur can logically appear in one of three places: before V1, between V1 and V2, and following V2. The order O-V1-V2 is seen in (35), and the corresponding V1-O-V2 construction in (75):

(75) a-mo-puʔã **tsɛ-ɾ-aʔɨ** i-mo-ʔã-mɨ
1SG-CAUS-rise 1SG-EP-son 3-CAUS-stand-V2
'I made my son stand up.'

The occurrence of the object between V1 and V2 is quite rare, as is, in fact, the occurrence of other nonverbal constituents, such as locational adjuncts. Further, when a native speaker of Mbyá edits written material, such elements tend to get moved elsewhere. This suggests that in cases where arguments occur between V1 and V2 in natural speech, the V2 seems to have been added as an afterthought. Evidence from editing, then, lends weight to an analysis of the V1-V2 construction as a phrase which distributes like a single main verb.

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[8] No cases have been found of lexical objects incorporated with transitive V2s in Mbyá, although these are reported for Tupinambá (Rodrigues 1953:130).

Of the remaining two orders O-V1-V2 and V1-V2-O, one might expect the latter to predominate, given that the pragmatically neutral order of main clause constituents is SVO (Dooley 1982). As a matter of fact, however, O-V1-V2 occurs about four times as often as V1-V2-O. The explanation of this is not clear. Two observations may be relevant. First, SOV appears to have been the earlier basic order for Mbyá and Tupí-Guaraní languages in general. Second, the association of V1 with O (head verb with object) may be almost as close as that of V1 with V2 (head verb with modifier).[9]

6 Comparison with subordinate clauses

The next three sections address the question: Can the Mbyá V1-V2 construction be identified with some more-or-less familiar construction type? Three construction types are surveyed: subordinate clauses, verbal coordination, and serial verb constructions. The answer in each case is that there are differences, but the V1-V2 construction appears to be closest to serial verb constructions.

6.1 Adverbial subordinate clauses

In some respects, V2s resemble adverbial subordinate clauses. For one thing, modifiers and subordinate elements are both dependent on a clause or a verb-headed phrase. For another, the basic form of the V2 suffix, *-βɨ*, is homophonous with, and has historically given rise to (Rodrigues, p.c.), the enclitic switch reference clause subordinator *βɨ* 'SAME SUBJECT'. The possibility exists, then, that V2s are a reduced type of subordinate clause having an adverbial function. This is ruled out, however, by differences of various kinds between V2s and adverbial subordinate clauses in Mbyá.

Phonologically, as discussed in Sect. 3, V2s in Mbyá do not carry phrase stress; main verbs in subordinate clauses often do. Of the three phrase stresses signalled in (76) with ", the middle one is on the main verb of a subordinate clause:

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[9] Compare Lehmann's (1973) generalization on the level of typology, that modifiers are generally placed on the opposite side of their head from the head's "primary concomitant" (the primary concomitant of a transitive verb is its object).

(76) tsɛ-ɾ-"o katɨ a-"a βɨ a-"?a
1SG-EP-house toward 1SG-go SS 1SG-fall
'As I was going toward my house, I fell.'

Further, the subordinating conjunction *βɨ* does not carry secondary stress, whereas the V2 suffix often does; see the discussion of (33).

Syntactically, verbs in subordinate clauses often have phrase-level arguments (subject, object, adjunct); the adjunct phrase *tsɛɾo katɨ* 'toward my house' in (76) is one such argument. V2s do not generally have overt arguments distinct from those in V1.

However, it sometimes happens that the occurrence of a V2 results in an argument that the V1 by itself would not have. In this regard, compare (77) with (51):

(77) moka a-ɲopɨ h-ɛɾ-u-βɨ **tsɛ-ɾ-o** **katɨ**
rifle 1SG-get 3-COM-come-V2 1SG-EP-house toward
'I got the rifle and brought it with me toward my house.'

The same sentence as (77) but without the V2 *hɛɾuβɨ* 'bringing it' would be anomalous, in much the same way as its English translation: *?? I got the rifle toward my house.* The adverbial phrase *tsɛɾo katɨ* 'toward my house' must therefore attach either to V2 or to the V1-V2 construction as a whole; if it attaches to V2, then V2 plus that phrase would need to be granted status as some kind of subordinate clause.

However, there are both syntactic and semantic considerations which suggest that phrases such as 'toward my house' in (77) should be analyzed as attaching to the entire V1-V2 construction. Syntactically, adverbial phrases that come in with V2s always occur following the V1-V2 construction, just as clausal adjuncts typically occur following the main verb when no V2 is present. In subordinate clauses, however, the typical order is adjunct - verb - subordinating conjunction, as seen in (76). Word order, then, suggests that the subordinate clause analysis is not appropriate for the V2 in (77).

Semantically, as noted in Sect. 2, a V1-V2 construction often presents two separate actions as one complex event. This is plausible for (77); a complex event of getting and bringing would involve an agent ('I'), a patient ('rifle') and a locational goal ('toward my house').

Whereas V2s are limited to a small lexical class (Table 1), verbs in subordinate clauses are not so limited. Further, when stems which can occur in V2s do occur as main verbs in subordinate clauses and are accompanied by the subordinating conjunction *βɨ*, this element does not take alternate forms as the V2 suffix does. For example, the stem *-ɨ̃* 'be located' takes *-nɨ* as its V2 suffix (see (21)), but is followed by the subordinating conjunction *βɨ* when it is the main verb in a subordinate clause:

(78) kʷatsia a-ɛtsa t-ɛna pɨ a-ɨ̃ **βɨ**
paper 1SG-see NPOSSD-place in 1SG-be.located SS
'I was reading while seated on a bench.'

Finally, it can be observed that V1-V2 constructions can occur in subordinate clauses. In this case, the V2 suffix and the subordinating conjunction both occur:

(79) a-maʔɛ-apo a-iko-**βɨ** **βɨ** tsɛ-kanɛʔõ
1SG-thing-do 1SG-be-V2 SS 1SG-weary
'I got tired from working constantly.'

This in itself does not imply that V2s cannot be subordinate clauses; subordinate clauses in Mbyá can, in fact, occur in other embedded subordinate clauses, with the two subordinating conjunctions juxtaposed. However, two such nested subordinate clauses have not been found with the same subordinating conjunction, whether *βɨ* 'SAME SUBJECT', *ɾamõ* 'DIFFERENT SUBJECT', or any other. It appears that juxtaposed subordinating conjunctions must be different.

6.2 Purpose clauses

Rodrigues (1953:126) gives three semantic uses of V2s in Tupinambá, a now-extinct Tupí-Guaraní language: to express an action simultaneous with that of V1, to express an action subsequent to V1, and to express a purpose for the action of V1. Only the first two of these are found with Mbyá V2s (Sect. 2); purpose clauses are encoded by other means. Because of the close association of purpose clauses with the V1-V2 construction, not only semantically but, as it turns out, historically as well, Mbyá purpose clauses are here examined in some detail.

The most characteristic type of purpose clause ends in *aŋwã* 'PURPOSE':

(80) a-ɲu apɨ a-iko aŋʷã
1SG-come here 1SG-be PURP
'I came in order to live here.'

Purpose clauses often do not have the same subject as the main clause:

(81) a-ɲu apɨ pɛ-kwɛɾa aŋʷã
1SG-come here 2PL-get.well PURP
'I came here in order for you to get well.'

When the two clauses have coreferential subjects and the main verb is a verb of motion, the interpretation of purpose seems to be common. As a result, the conjunction *aŋwã* 'PURPOSE' is sometimes simply omitted altogether, as in (82), or is replaced with a conjunction which is semantically more neutral, such as *βɨ* 'SAME SUBJECT' in (83):

(82) oɾo-o oɾo-ɲɛ-poã-nõ
1+2-go 1+2-REFL-medicine-lay
'We went for medical treatment.'

(83) oɾo-o oɾo-ɲɛ-poã-nõ βɨ
1+2-go 1+2-REFL-medicine-lay SS
'We went for medical treatment.'

When the purpose clause is fronted for focus, it must be followed by a subordinating conjunction, either *aŋwã* or *βɨ* (the latter possible with subject coreferentiality and a main verb of motion):

(84) oɾo-ɲɛ-poã-nõ βɨ oɾo-o
1+2-REFL-medicine-lay SS 1+2-go
'It was for medical treatment that we went.'

When the subjects are coreferential, the main verb is a verb of motion and the purpose verb is transitive, it is common to find a lexical direct object incorporated onto the verb in the purpose clause, with no subject marking. The direct object in such constructions is usually or always generic or nonreferential:

(85) a-a ta tatu mo-ʔa βɨ
1SG-go about.to armadillo CAUS-fall SS
'I'm about to go hunting armadillos.'

(86) o-o kaʔaŋʷɨ ɾ-ɛ ɛi ɾ-ɛka βɨ
3-go woods EP-ABL honey EP-seek SS
'He went to the woods to look for honey.'

(87) ɲa-a ŋwɨɾa-ʔi aβɨ βɨ
1+2-go bird-DIMIN miss SS
'Let's go bird-hunting (lit., bird-missing).'

On the other hand, it is also permissible, in any of these clauses, to mark such verbs for subject agreement. Compare (87) with (88):

(88) ɲa-a ŋʷɨɾa-ʔi ɲa-aβɨ βɨ
1+2-go bird-DIMIN 1+2-miss SS
'Let's go bird-hunting.'

The construction found in (85-87) has much in common with the V1-V2 construction. In Tupinambá, in fact, such a construction included the V2 suffix, which in that language was the same as that of proto-Tupí-Guaraní discussed in Sect. 4.1 (Rodrigues 1953:130). Besides the absence of subject marking, a transitive purpose clause of this type has in common with transitive V2s the fact that it has the same subject as the main clause and contains no elements besides the incorporated object, transitive verb stem, and subordinating conjunction *βɨ*. No adjuncts are permitted, and, in fact, neither are conjoined objects:

(89) * a-a ta tatu, ŋʷatsu mo-ʔa βɨ
1SG-go about.to armadillo deer CAUS-fall SS
'I'm about to go hunting armadillos and deer.'

Examples like (89) are not attested.

On the other hand, this construction in Mbyá differs from the V1-V2 construction in four ways. First, the class of transitive verbs which admit this type of object incorporation appears to be an open class. Second, the *βɨ* which occurs is the subordinating conjunction, not the V2 suffix, as can be seen from its lack of secondary stress and lack of alternate forms.

(90) a-a ta t-ɛmi-ʔu mo-Ĩ βɨ
1SG-go about.to NPOSSD-NR-eat CAUS-be.located SS
'I'm about to go put some food on (i.e., to cook).'

In (90), the stem *-moĨ* 'put' (lit., cause to be located) is followed by the subordinating conjunction *βɨ*, not the suffix *-nɨ* which it would take as a V2; see discussion on (78). A third fact which distinguishes these constructions is that the purpose clause can be fronted for focus:

(91) **ŋwɨra-ʔi aβɨ βɨ** a-a
bird-DIMIN miss SS 1SG-go
'It's bird-hunting that I'm going' (in answer to the question, 'What you going for?')

A V2, by contrast, always occurs following V1. A fourth fact is that adjuncts occur much more freely between main verb and purpose clause than between V1 and V2 (cf. Sect. 5.2):

(92) a-a ɲɛβɨ **βɛra** ɾ-o **pɨ** βoko ɾ-ɛka βɨ
1SG-go again Vera EP-house in bag EP-seek SS
'I'm going again to Vera's house to look for the bag.'

Thus, (91) and (92) show that the purpose clause has more syntactic freedom with respect to the main verb (clause) than a V2 has. In the present paper, this is explained by analyzing V1-V2 as a phrasal construction, whereas purpose clauses are actual subordinate clauses.

Hence, examples (85-87) and (90-92) do not involve a V1-V2 construction, but rather something in between that and an adverbial subordinate clause (Sect. 6.1); the latter have main-verb agreement (Sect. 4.3) instead of the above kind of incorporation.

In diachronic perspective, what seems to have happened is that as Mbyá restricted its inventory of V2 stems to a small class, purpose clauses of the most common variety were reanalyzed as adverbial subordinate clauses. A subclass of purpose clauses, however, retained a feature of the former V1-V2 construction. Specifically, when the subject is the same as that of the main clause, when the main verb is a verb of motion and when the verb in the purpose clause is transitive and has an incorporated lexical object, the purpose verb shows no subject agreement.

7 Comparison with verbal coordination

It is relatively simple to distinguish the Mbyá V1-V2 construction from two verbs in a coordinate arrangement. Consider the coordinate construction in (93):

(93) aβa βai o-ɲo-pɨ t-aʔɨ, o-ɲuka
man bad 3-TR-grab 3-son 3-kill
'The wild man grabbed his (another person's) son and killed him.'

The following points should make clear that this kind of construction is different from V1-V2.

a. the second verb, *oɲuka* 'he killed', has no V2 suffix and shows subject agreement, though transitive (cf. Sects. 4.1 and 4.3);
b. *oɲuka* is not one of the closed set of V2s (cf. Sect. 2);
c. the object *taʔɨ* 'his son' of the first verb *oɲopɨ* 'he grabbed' occurs commonly after that verb, and before the conjoined verb (cf. Sect. 5.2);
d. there is an intonation break before the conjoined verb, as well as primary stress on the object and on the conjoined verb, not just on the first verb (cf. Sect. 3).

Such evidence clearly distinguishes V1-V2 constructions from verbal coordination, although both types appear to have similar argument sharing constraints (Sect. 5.1).

8 Comparison with serial verb constructions

Whereas in earlier sections of this paper the V1-V2 construction was compared with other constructions in Mbyá, the present section compares it with a construction type that is attested neither in Mbyá nor in any other South American language.[10] Nevertheless, the Mbyá V1-V2 construction appears to be closest to serial verb constructions (SVCs) than to any other commonly attested construction type.

Unfortunately, linguists do not agree on specific characteristics of SVCs. Zwicky (1990), in an article entitled "What are we talking about when we talk about serial verbs?", gives the answer "Lots of things" (p. 7). The following description of SVCs is somewhat of a composite, subject to all of the dangers which that involves.

(94) a. The verbs in a serial construction (call them V1 and V2 in the case of two) are lexical verbs (Gerdts);

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[10] According to Sebba (p. 213), SVCs "are restricted to a rather small subset of the world's languages, and to four geographical regions in particular: West Africa, the Caribbean, South East Asia and New Guinea"; there are also Austronesian SVC languages of Oceania (e.g., Fijian, Foley & Olson). Yuman languages of North America should possibly be added to the list (Redden).

b. V1 and V2 "they are taken by speakers as representing parts of one event" (Hopper & Thompson, p. 735);

c. "no ascertainable clause boundary exists between V1 and V2" (Foley & Olson, p. 47; Gerdts);

d. "negation, whether marked once or more than once, applies to the whole string" (Sebba, p. 87);

e. "if V1 and V2 can denote separate actions, then they must be interpreted as having the same tense/aspect/ mode" (Foley & Olson, p. 23; cf. Gerdts 1989; Hopper & Thompson, p. 734; Sebba, pp. 87f);

f. the V1-V2 construction is significantly different from a variety of other construction types, including adpositional phrases, adverbs, coordinations, purpose or result clauses, adverbial subordinate clauses and clausal complements (Baker pp. 514, 550; Sebba, p. 87);

g. the construction has no conjunction or any other marker of coordination or subordination (Gerdts; Sebba, p. 86);

h. the subject of V2 must either be the subject or the object of V1;

i. V1 and V2 have, between them, "only one overtly expressed (syntactic) subject" (Sebba, p. 86);

j. in an SVC, it is typical for the object of V1 to occur between V1 and V2 (Sebba, p. 212).

Correspondences with the Mbyá V1-V2 construction are numerous. They are here examined with reference to the statements in (94).

(94a-b). Mbyá V2s as well as V1s are lexical verbs which present possibly different actions as a single event (Sect. 2). Foley & Olson (p. 40) further describe SVCs in terms of an "open slot" which "may be filled by a large number of verbs drawn from a wide variety of semantic classes", and a "restricted slot" in which "only certain verbs or classes of verbs are allowed" to occur. "In general, all open slots precede all restricted slots in linear order." They then use semantic criteria to posit "a hierarchy of verb types accessible to the restricted slot" (pp. 41ff). Some languages, such as Kaititj of central Australia, only have

motion verbs in the restricted slot, with meanings like 'come' and 'go'. Other languages, such as Fijian, have these and also verbs of posture and position. These first two types are classed as "active intransitive verbs" having actors. Still other languages have, in addition to the above types, "stative or process verbs" having undergoers rather than actors, which are coreferential with undergoers in other verbs in the construction. Igbo of West Africa is a language of this type. Mbyá V2s are a closed class of verbs which correspond closely to the first two of Foley & Olson's semantic types. Thus, if the Mbyá V1-V2 construction were to be analyzed as an SVC, the language would occupy the same position as Fijian in Foley & Olson's hierarchy.

(94c-e). Syntactically, the Mbyá V1-V2 construction gives evidence of being a single phrase; there is no evidence of a clause boundary between the two verbs (cf. (94c)). This is based on facts regarding such diverse phenomena as stress assignment (Sect. 3), tense/aspect/mood (especially the latter, Sect. 4.5), argument sharing (Sect. 5.1) and positioning of arguments (Sect. 5.2). It is true that verbal negation in this construction does not strictly follow Sebba's prescription (94d), since the scope of negation can be only part of the construction. However, this is no different from the negation of a verb and its adverbial modifier in Mbyá (Sect. 4.4).

(94f-g). The Mbyá V1-V2 construction is clearly different from clause subordination (Sect. 6) and verbal coordination (Sect. 7), but V2 does show a distinct marker of dependence: the V2 suffix (Sect. 4.1). This suffix, along with the distinctive agreement marking shown by V2 and its agreement with V1 in regard to arguments, indicates that V2 is dependent on V1, quite possibly as a modifier (Sect. 5).

(94h-j). Descriptions of argument sharing in serial verb constructions vary; (94h) appears to be included in them all. The Mbyá requirement of coreferentiality of both subjects and objects (in the case that V2 as well as V1 is transitive) is stronger than any of the requirements posited for SVCs, and satisfies all of them.[11] However, the virtual

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[11] The following are different statements of argument sharing in SVCs: "serial verb constructions are formed only on the basis of the same subject or the object-subject constraints" (Foley & Olson, p. 26); "V1 and V2 must share an argument: either subject/subject or object/object or both" (Gerdts; but she also discusses object-subject sharing); "either: the semantic subject of Vi is the subject of Vi+1, or: the object of Vi is the semantic subject of

absence of arguments between the verbs in the Mbyá V1-V2 construction (Sect. 5.2) is atypical of SVCs.

The Mbyá V1-V2 construction, therefore, has much in common with SVCs. On the other hand, there are points on which it differs from the better known kinds of SVCs: a distinctive V2 suffix, a distinctive pattern of agreement markers, coreferentiality of objects as well as subjects, and the virtual nonoccurrence of NP objects between V1 and V2.

Both Sebba and Zwicky state that, in many of the languages having SVCs, there is a paucity of morphology which "makes it notoriously difficult to find non-syntactic criteria for determining category status" (Sebba). Two kinds of category status are in view. First, one looks for evidence which will identify SVCs as opposed to other kinds of constructions, such as verbal coordination and purpose clauses (Sebba, Baker). Second, one seeks to classify known SVCs as either coordinating SVCs, in which the verbs are multiple heads of a single phrasal or phrase-internal construction, or else subordinating SVCs, in which one verb is head and the other(s) is(are) dependent (the classification from Sebba). In the case of the Mbyá V2, there is clear morphological evidence of dependence (Sects. 4.1 and 4.3).[12]

In a word, the Mbyá V1-V2 construction is syntactically "tighter" than stock examples of SVCs. This subsumes not only the morphologically clear dependence of V2 on V1, but

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Vi+1" (Sebba); if V1 is transitive, its object is the same as either the subject or object of V2 (Baker). On a related point, Sebba (p. 122) claims that in SVCs, "an intransitive verb can appear after a transitive one but a transitive verb may appear in series after a transitive only". If that were so, the Mbyá constraint barring transitive V2s following intransitive V1s would certainly lend weight to identifying the Mbyá construction as an SVC. Zwicky, however, considers constructions like the English *Go see who's at the door* as a type of SVC (p. 9).

[12] The following statement from Zwicky (p. 8) is enigmatic in this regard: "Though many of the stock examples of languages with serial verbs lack the verbal morphology that would allow us to classify the serial constructions as subordinate or coordinate on the basis of the way finite and non-finite categories are distributed, it is generally assumed that serials look morphologically subordinate." It is not clear in what sense they could "look morphologically subordinate" in the absence of such morphology.

also its agreement with V1 in regard to arguments and in the virtual impermeability of the construction to arguments occurring between the two verbs. If an SVC is, among other things, a "combination of two or more verbal constituents which is problematic because it exhibits some properties of subordination and some of coordination" (Zwicky, p. 2), then the Mbyá construction should not be classified with prototypical SVCs.

9 Concluding discussion

The V1-V2 construction in Mbyá, under examination from various viewpoints (lexico-semantic, phonological, morphological and syntactic), is seen to be a phrase in which V2 functions as a modifier of V1. It is different from other constructions in the language, such as clause subordination (including purpose clauses) and verbal coordination. On the other hand, it has much in common with SVCs that are amply documented for languages of West Africa, the Caribbean, East and Southeast Asia and Papua New Guinea (and for other Austronesian languages).

The latter part of this paper (Sects. 6-8) is organized as if addressing a question of classification: Under which familiar construction type does the Mbyá V1-V2 construction fit? Specifically, Is this construction a "real" SVC? As Zwicky (1990) points out, however, given the syntactic diversity of SVCs and the lack of rigid and unified criteria for their identification, that question becomes spurious where borderline cases are concerned.[13] There are prototypical, or "historically faithful" (to use Zwicky's term) SVCs which are worth identifying as such, but there is little point in trying to classify borderline cases on the basis of present understanding.

Instead, another type of question could be asked, one which takes as its point of departure the observation that "most serializing languages are isolating" (Foley & Olson, p. 21), or at least, to use Comrie's term (pp. 46ff), they have a low "index of synthesis". That is, such languages tend to have little inflectional morphology; they use verbs instead of adpositions to code notions of location and motion, and they commonly rely on juxtaposition rather than tight syntax (Sebba, p. 214f). The following question, then, is of some interest: In a language with a relatively high index of synthesis (such as Mbyá, Sect. 4), what kind of construction might be found which is semantically and functionally similar to SVCs?

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[13] "...there is no question here of deciding which examples are *really* serial verbs and which are just some other problematic type of V+V combination" (Zwicky, p. 2).

One plausible answer would be: A construction that is syntactically tighter than stock examples of SVCs. Such a construction, for example, would involve multiple verbs, not with clause subordination, but likely with one verb serving as head and the other(s) showing dependency on it, quite possibly by means of morphological signals (e.g., distinctive agreement patterns and/or a marker reminiscent of subordinating conjunctions). Argument sharing might be more tightly constrained than in familiar SVC constructions, even to the point of becoming agreement. The construction might well exhibit other clear properties of a phrase, such as impenetrability to arguments; alternatively, it might have fixed positions in which arguments, especially objects, would occur. The construction would behave somewhat like a single main verb in its syntagmatic relations with other sentence elements, but its internal complexity might give rise to certain differences. The dependent verbs might be restricted to a small lexical class.

Most of these characteristics are found in the Mbyá V1-V2 construction, and of course were suggested by it. The point is not, however, to find a "back-door" approach so that the Mbyá V1-V2 construction can be classified as a type of SVC. Rather, it is to show that the Mbyá construction is indeed like SVCs in significant ways, but is grammatically tighter in ways that one would expect in a language with a fairly high index of synthesis. The question thus moves away from simple classification and becomes one of identifying similarities and differences with respect to a prototypical construction type.

ABBREVIATIONS

ABL	ablative
ANA	anaphora
CAUS	causative
COLL	collective
COM	comitative
DAT	dative
DIMIN	diminutive
DP	distant past
EP	epenthesis
FUT	future
NPOSSD	nonpossessed
NR	nominalizer
O	direct object
PL	plural
PURP	purpose
RECIP	reciprocal
REFL	reflexive
REL	relativizer
S	subject
SG	singular
SS	same subject
TR	transitivizer
V2	identifying suffix of V2 verb
1	1st person
1+2	1st person pl. inclusive
1+3	1st person pl. exclusive
2	2nd person
3	3rd person

REFERENCES

Aaron, Edna and Eunice Burgess. 1972. The verb phrase in Guaraní. ms.

Baker, Mark. 1989. Object-sharing and projection in serial verb constructions. *LI* 20.513-53.

Comrie, Bernard. 1989. *Language universals and linguistic typology*, second edition. Chicago: The University of Chicago Press.

Dietrich, Wolf. 1986. *El idioma chiriguano: gramática, textos, vocabulário*. Madrid: Instituto de Cooperacion Iberoamericana.

Dooley, Robert A. 1982. Options in the pragmatic structuring of Guaraní sentences. *Lg*. 58.307-31.

______. 1990. Vocabulário básico do Guaraní contemporâneo (dialeto Mbyá do Brasil), segunda edição. Arquivo Lingüístico no. 196. Brasília: Summer Institute of Linguistics.

Foley, William A. and Mike Olson. 1983. Clausehood and verb serialization. *Grammar inside and outside the clause*, ed. by Johanna Nichols and Anthony Woodbury. Cambridge: Cambridge U. Press, 17-60.

Gerdts, Donna. 1989. Serial verbs. Class notes. Summer Institute of Linguistics, University of North Dakota Session.

Gregores, Emma, and Jorge A. Suarez. 1967. A description of Colloquial Guaraní. (Janua Linguarum, series practica, 27). The Hague: Mouton.

Hyman, Larry. 1975. *Phonology: theory and analysis*. New York: Holt.

Hopper, Paul and Sandra Thompson. 1984. The discourse basis for lexical categories in universal grammar. *Lg*. 60.703-52.

Jensen, Cheryl. 1989. O desenvolvimento histórico da língua Wayampi. Campinas: Universidade Estadual de Campinas.

_____. 1990. Cross-referencing changes in some Tupí-Guaraní languages. *Amazonian linguistics: studies in lowland South American languages*, ed. by Doris L. Payne. Austin, TX: University of Texas Press, 117-58.

Joseph, Brian D. and Arnold M. Zwicky, eds. 1990. When verbs collide: Papers from the 1990 Ohio State Mini-conference on Serial Verbs. The Ohio State University Working Papers in Linguistics, no. 39. Columbus, OH: The Ohio State University, Department of Linguistics.

Lehmann, Winfred P. 1973. A structural principle of language and its implications. *Lg*. 49.47-66.

Lemos Barbosa, Pe. A. n. d. Curso de tupi antigo. Rio de Janeiro: Livraria São José.

Mithun, Marianne. 1990. On the "Split S"/"Fluid S" distinction: degrees of elasticity in agent/patient case systems. Paper presented at summer meeting of SSILA, Vancouver.

Montoya, Antonio Ruiz de. 1876. *Arte de la lengua guarani*. Nueva edicion. Viena, Paris.

Redden, James E. 1990. Serial vs. consecutive verbs in Walapai. In Joseph and Zwicky, 240-46.

Rodrigues, Aryon Dall'Igna. 1953. Morfologia do verbo tupi. *Letras* 1.121-52.

_____. 1981. Estrutura do Tupinambá. ms.

Schachter, Paul. 1985. Parts-of-speech systems. *Language typology and syntactic description*, volume 1: Clause structure, ed. by Timothy Shopen. Cambridge: Cambridge University Press, 3-61.

Sebba, Mark. 1987. *The syntax of serial verbs: an investigation into serialisation in Sranan and other languages*. Amsterdam: John Benjamins.

Zwicky, Arnold M. 1990. What are we talking about when we talk about serial verbs? In Joseph and Zwicky, 1-13.

SEMANTICALLY ERGATIVE LANGUAGES IN TYPOLOGICAL PERSPECTIVE

Alexandr E. Kibrik

1 Introduction
2 Conceptual apparatus
3 Syntactic features of role-oriented ergative languages
    3.1 Semantic roles and cases
    3.2 Voices
    3.3 Semantic role derivation
    3.4 Semantic derivation of predicates
    3.5 Nominalization
    3.6 Reflexivization
    3.7 Relativization
    3.8 Complementation
    3.9 Coordination
4 Summary

1 Introduction

It would be no exaggeration to say that in recent years interest in ergativity has grown almost exponentially. This "ergative boom" is no accident; it is the natural consequence of the fact that the focus of theoretical investigations has shifted to problems of the typology of content. And since ergativity has to do with how sentences are constructed, it is directly related to language type. What is important for linguistics is not the ergative pattern in itself but the fact that it is opposed to the accusative pattern and hence allows us to see the latter as a particular pattern of sentence construction rather than as a language universal. Ergativity requires the creation of a general theory of sentence constructions in which the accusative and ergative patterns appear as elements in the space of logical possibilities, assigned by the universal linguistic mechanism. And so the search for the essence of ergativity is ultimately a search for the essence of a universal model for constructing a basic sentence and for a typology of its particular realizations. Therefore, if linguists encountering ergative phenomena for the first time were to examine it exclusively from the point of view of its morphological distinctiveness (as did Uslar, Schuchardt, and Dirr), then generally their surprise at the unusual case techniques for coding subject and object would be superseded by attempts first to explain the existence of those techniques, and second to delimit "real" ergativity from "accidental" or superficial ergativity. Each of these two tasks can be accomplished in different ways, depending on one's initial assumptions. Rather than attempt a general overview of individual contributions to the literature on ergativity, I will simply survey what in my view are the essential results achieved so far.

1. It turns out that there is great diversity in the languages which can be described as ergative. Any limitation of the term **ergativity** leads to a substantial reduction in the number of languages admitted as properly ergatives. Languages which some researchers would consider to be ergative are excluded by others, and vice versa.

2. The only viable specifications of the term "ergative" prove to be those which define it as having to do with how content is coded in form, rather than those relying wholly on the formal organization of surface syntactic structure (the latter approach is taken by Mel'čhuk 1988). At the same time this path inevitably leads to one of the most fundamental questions of linguistics: What is the initial form of thought, or, in other words, What are the basic components of meaning and how do they receive their form?

3. The opposition of ergativity to accusativity is not a binary opposition; these concepts are simply two members of a multiple opposition.

4. Ergativity is not a homogeneous phenomenon. In individual languages ergativity co-occurs with other grammatical phenomena, and this requires the linguist to distinguish between: 1) inherent consequences of ergativity (phenomena indivisibly linked with ergativity); 2) phenomena often found together with ergativity, facilitated but not required by it (so that they are also found in non-ergative languages). An example of the first type is the absence of voice oppositions of the Indo-European type in ergative languages. An example of the second type is tense-based ergative/accusative splits where the ergative pattern appears in the past perfect tenses while the accusative appears in the present and future, as in Georgian and Svan. In these languages the ergative pattern is implied by the tense semantics rather than vice versa (Harris 1981). The difference between these two types of co-occurrent grammatical phenomena is not always obvious, and it is especially easy to mistake the second type for the first.

5. Languages are almost never homogeneous as regards their sentence structure - if they were, no changes in syntactic type would be possible - so it is important to

know how to identify the different tendencies in a language. This means that the notion "ergative language" is of dubious validity, and some scholars prefer to talk only about the "ergative construction" as a feature of particular languages (Klimov 1972).

This theoretical background is assumed in this paper without further discussion or commentary. In what follows I explicate briefly some of my own assumptions and my own conceptual apparatus for describing the syntactic structure of individual languages.

2 Conceptual apparatus

1. There is a widespread tendency to describe the opposition of accusativity to ergativity in terms of subject and object, assuming universality and uniform cross-linguistic realization for these syntactic notions. This is a consequence of a Eurocentric understanding of the essence of language. It is important that the syntactic type of sentence construction and the syntactic relations present in the sentence be defined independently of each other. And in any event the notions "subject" and "object", once they are studied more carefully, prove to be no less complicated than "ergativity" and "accusativity", and even less obviously universal (Van Valin 1981). Therefore it is necessary to work with primary notions that are not so language-specific. Ergativity is usually defined in terms of subject and object: the object of the transitive verb is described as formally identical to the intransitive subject, while the subject of a transitive verb receives special treatment. This kind of definition is used even by so functionally and typologically oriented a scholar as Givón (1984:151). This approach is useful only for an introductory orientation: it describes the facts of an ergative language in terms of more familiar accusative structures.

2. I assume that the basic syntactic structures of natural languages are determined not by formal restrictions which are imposed a priori on the language, but by the functions borne by these structures. In other words, the semantic level is the input to the basic structure.

3. The most important component of basic syntactic structure is the number and case features of NPs. Since (as just claimed) semantics is the input to syntax, what are the principal semantic functions of case marking? The following would appear to me to be the most fundamental semantic functions (note that they correlate to some extent with the traditional division into semantics and pragmatics):

a) The **semantic roles** of propositional arguments (the "deep cases" of Fillmore 1968). The most important semantic roles consistently identified by researchers are Agent, Patient, Experiencer, Recipient, Source, and a few others. These semantic primitives provide a universal means for generalizing over individual characteristics of participants in individual events.

b) The **communicative status** of NPs (what Chafe 1976 calls "information packaging strategies"). Among semantic oppositions subsumed under this function are such well-known notions as topic/comment, new/old information, specified/non-specified NP, etc. These meanings are related not to propositional and situational semantics but to the communicative goals of the speaker - to pack the information most expediently for the hearer's comprehension.

c) **Speech-act reference**. In actual communication, the most easily recoverable pragmatics for speaker and hearer is the speech act itself - in whose deictic system of coordinates (I - HERE - NOW) the information content of the message is mapped. This system of coordinates is what Wierzbicka 1980 proposes as the illocutive frame for the semantic representation of any declarative utterance X:

I say to you that X

with deictic elements *I* and *you*. Consequently the following basic semantic oppositions are natural because they are determined by the speech act:

speaker/non-speaker
speech-act participants/others

Note that in many American Indian languages, case-marking systems are based to a large extent on these oppositions: see e.g. Seki 1990.

4. In regard to the functions of case marking (in the broad sense, including morphological case, adpositions, clitics, word order, agreement, etc.), it is possible to separate three "pure" types of language:

(Semantic) role-oriented languages
(Information) packaging-oriented languages
Speech-act-oriented languages

A "pure" language is one whose case marking is predominantly determined by only one of these functions. That function is dominant for the language. The languages that have no single dominant function are "mixed".

5. For "mixed" languages (which are statistically predominant) it is extremely important to know which of the following two basic principles for coding this polyfunctional information they use:

agglutination, whereby each function has its own coding devices

fusion, whereby one coding device expresses all the functions

In other words, it turns out that the opposition of agglutinative to fusional techniques is meaningful not only for morphology but also no less for syntax.

Pure languages are syntactically agglutinative, but mixed languages can be either agglutinative or fusional. Unfortunately, most well-known European languages (the principal area of linguistic theory) belong to the mixed fusional type, and this fact makes it very difficult to sort out the meanings coded by the syntactic devices. The evidence of pure languages is most valuable for general typology, because the transparently organized structure of these languages, if examined without bias, gives a key for understanding the real types of functional oppositions.

In this discussion I will argue the following points. First, in addition to mixed languages there actually exist pure languages, one example of which are the role-oriented languages. Second, semantically ergative languages are relatively common in this group. Third, the syntactic organization of these languages serves as definitive proof of the existence of the role functions posited above. Fourth, it is possible to calculate all types of pure role-oriented languages.

6. In regard to role functions, the propositional structure of an utterance is determined by the number of arguments (NPs) and by their semantic roles, i.e. by the case frame. The following case frames are the most important (listed in order of increasing transitivity, as that term is defined by Hopper and Thompson 1980):

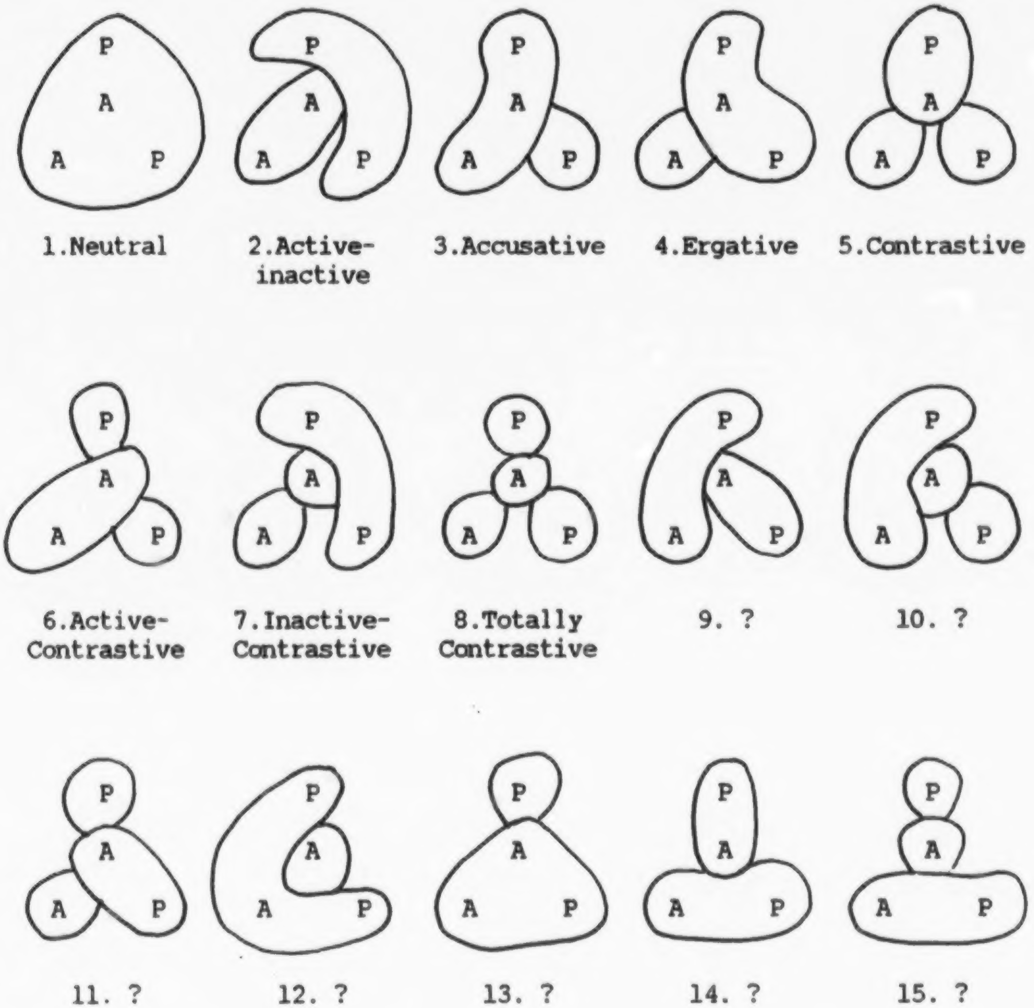
<Verb + Patient>: e.g., 'be good', 'be dead' (as opposed to 'die'), etc.

<Verb + Agent>: 'run', 'sit down', (as opposed to 'sit'), 'stand up' (as opposed to 'stay'), 'work', etc.

<Verb + Agent + Patient>: 'beat', 'kill', 'eat', etc.

7. The case marking of NPs in these case frames can map different systems of oppositions. The maximal number of logically possible oppositions is 15. They are shown in Figure 1 (arguments circled together have the same coding devices).

Figure 1 Calculus of argument coding types



1.Neutral
2.Active-inactive
3.Accusative
4.Ergative
5.Contrastive
6.Active-Contrastive
7.Inactive-Contrastive
8.Totally Contrastive
9. ?
10. ?
11. ?
12. ?
13. ?
14. ?
15. ?

8. However, even a glance at this calculus makes clear that the various coding types do not all have the same probability of occurrence. This is a purely intuitive judgment, but one for which linguistic grounds can be found. The reason has to do with semiotic and pragmatic principles for coding strategies that are natural for languages:

a) **Semantic motivation:** formal differences are signs of semantic differences (semantic roles, in our case).

b) **Maximal distinctiveness:** ambiguous structures are disfavored (in our case, the two-place verb leads to ambiguity, making it necessary to differentiate the roles of the NPs).

c) **Economy of expression:** use the minimal set of coding devices required to distinguish the semantic entities.

These principles are mutually independent in the logical sense, so they can conflict with each other, and every language resolves such conflicts in its own way. A real linguistic system is the result of a compromise between these principles.

9. What do these principles imply for our calculus? The neutral type (1) is in contradiction with principles (a)-(b) and is totally determined by the principle of economy (c). This type is very rare in the languages of the world; an example is Lisu (Li and Thompson 1976:47). In some Indo-European languages with case and gender there are neutral nominal subsystems which do not distinguish nominative and accusative cases, Russian *okno* 'window' (nom=acc), *mat'* 'mother' (nom=acc), *doč'* 'daughter' (nom=acc), etc. These words in some syntactic contexts can occasionally create ambiguous sentences, e.g.

```
Mat'              ljubit doč'
Mother-NOM?ACC? loves  daughter-NOM?ACC?
'Mother loves daughter' or 'Daughter loves mother'
```

The active-inactive type (2) is semantically motivated: it consistently distinguishes Agent and Patient. (To be more accurate, what it distinguishes are the hyperroles Actor and Undergoer in the sense of role and reference grammar. See Van Valin, in press). However, it is not economical in that it differentiates the actants of one-place verbs. This is syntactically and paradigmatically redundant, because the role of an actant is usually determined by the meaning of the verb.

The accusative (3) and ergative (4) types are economical and unambiguous. These types are also the most widespread variants of sentence organization in natural languages. The question of their relation to the principle of motivatedness will be discussed later.

The contrastive type (5) satisfies principles (a) (if we suppose that Agents and Patients of one-place verbs are not equivalent to Agents and Patients of two-place verbs) and (b), but it is not economical because it produces a three-way opposition. This type is also very rare, but it is a common intermediate stage in the transition from one syntactic organization to another. For example,in Udi (a Daghestanian, primarily ergative, language, but developing toward the accusative pattern) the NP of a one-place verb is nominative, while the Agent and Patient of a two-place verb are respectively ergative and dative. Types (6)-(8) represent more differentiated variations of contrastiveness. Languages of these types are not known to exist, but separate local subsystems in particular languages can be found. The absence of such languages is evidently due to the principle of economy.

And finally, almost half of the logically possible types – types 9-15 – are not realized in natural languages. Their absence is naturally explained by their inconsistency with the basic semiotic-pragmatic coding principles. Particularly, their absence is an indirect proof that the Agent/Patient opposition is of critical importance to natural languages.

10. Let us return, however, to the accusative and ergative types (3)-(4). Do they satisfy the principle of semantic motivation? The identical coding of the actant of a one-place verb and one of the actants (either the Agent or the Patient) of a two-place verb would seem to be motivated not only by the principle of formal economy, but also because it offers the possibility of reinterpreting the semantic roles. It is possible to distinguish two hyperroles, whose basic meanings are as follows:

Protagonist: the main participant, the 'hero' of the situation, who is primarily responsible for the fact that this situation takes place.

Factitive: the immediate, nearest, most involved or affected participant of the situation.

Both of these hyperroles (like the previously mentioned Actor and Undergoer) belong to the set of semantic universals. However, different languages make different choices from this set. A language which chooses the hyperrole of Protagonist as its basic role entity belongs to the accusative type, while one which chooses Factitive represents the ergative pattern.

11. This typology of sentence organization is most directly relevant to the pure role-oriented languages. Such languages can respectively be termed **semantically** accusative, ergative, active-inactive, neutral, or contrastive.

It is also possible for one and the same technique of case marking to combine more than one function - for example, semantic role and communicative status. Such mixed fusional languages can be called **syntactically** accusative or ergative. The statistical distribution of accusativity and ergativity between semantics and syntax is extremely unequal:

	accusativity	**ergativity**
semantic	rare	frequent
syntactic	frequent	rare

Syntactically accusative and semantically ergative languages are the most frequent types. A possible example of a semantically accusative language is Tagalog, which has a role of Protagonist and in which roles and communicative characteristics are coded by different devices (see Schachter 1977). A syntactically ergative language is Dyirbal (see Dixon 1972). The asymmetry of accusative and ergative languages is not typologically accidental, but can be explained very naturally. The role of Protagonist (and not Factitive) in discourse most often has the communicative status of definite (according to the data of Givón 1979:52). The Agent of a two-place verb in narrative texts is definite and topical in 91% of its occurrences, but the Patient in only 56%. This fact is semantic support for allotting role and communicative functions to the same case form.

12. Now let us return to the main topic of our discussion – the semantically ergative languages. In such languages, and in fact in all role-oriented languages, syntactic processes apply irrespective of the semantic roles involved. Thus they consistently preserve the coding of roles, consistently opposing Factitive to Agent. In the second part of this paper I will argue that this type of syntactic organization actually exists, despite the Eurocentric doubts of many theoretician[illegible] Indo-European

languages belong to the mixed type of language with subject and object as basic entities. But in fact these are the notions which prevent us from understanding the essence of ergativity.

3 Syntactic features of role-oriented ergative languages

In this part I use my field data from twenty Daghestanian languages (see Kibrik 1979-1981, partially translated into English in Kibrik 1985), each of which in at least some respects approaches the ideal of semantic ergativity. Examples are from Archi unless otherwise indicated.

3.1 Semantic roles and cases

Sentences with core case frames:

(1) a. bošor w-irx$_{o}$ni
man,FAC,NOM,I work,PAST,I
The man worked.

b. buwa d-irx$_{o}$ni
mother,FAC,NOM,II work,PAST,II
The mother worked.

(2) a. bošor-mu buwa daał=e-r-c̄i
man,AG,ERG,I mother,FAC,NOM,II beat,PAST,II (compound verb)
The man beat (physically) the mother.

b. buwa-mu bošor daał=e-w-c̄i
mother,AG,ERG man,FAC,NOM,I beat,PAST,I
The mother beat the man.

(3) a. bošor-mu-s buwa d-ak̄u
man,EXP,DAT,I mother,FAC,NOM,II see,PAST,II
The man saw (my) mother.

b. bošor-mu buwa-s x̄$_o$alli bo-Lo
man,AG,ERG,I mother,REC,DAT bread,FAC,NOM,III give,PAST,III
The man gave the bread to (my) mother.

(4) a. bošor-mu buwa-s da-Ø-xdi
man,AG,ERG mother,REC,DAT hit,PAST,IV
The man hit (my) mother.

b. bošor-mu buwa-s xik' da-b-xdi
man,AG,ERG mother,REC,DAT fist,FAC,NOM,III hit,PAST,III
The man hit (my) mother with his fist.

(5) a. bošor x̄$_o$ara=e-w-ƛ̄i
man,FAC,NOM,I glad,PAST,I
The man was glad.

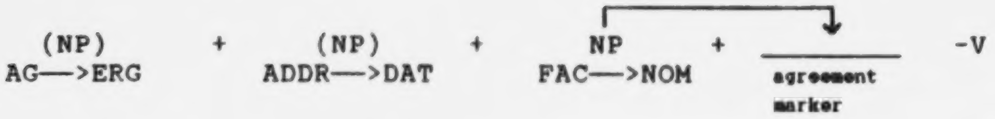
In (1) are sentences with the one-place verb 'work'. The Factitive NP is in the nominative, and the verb agrees with it in class (*w* for class I, *d* for class II). In (2) the Agent is in the ergative, the Factitive is in the nominative, and the verb again agrees with the Factitive in class (infixed d —> r in 2a). (3a) shows the case frame <Experiencer, Factitive> with the verb 'see'. It is important that the Experiencer is not identical to the Agent and has its own case marker, the dative. And in this example also the verb agrees with the Factitive. (3b) shows the three-place verb 'give'. The Agent and the Patient have ordinary case markers, ergative and nominative respectively; the Factitive controls verb agreement; and the third actant, the Recipient, has the same case marker as the Experiencer, namely dative. Here we have another hyperrole, Addressee, which combines the primary roles Recipient and Experiencer.

In (4a) what is of interest is the absence of a Factitive NP in the nominative, and the affected object of the verb 'hit' is interpreted as a Recipient-Addressee. No controller of agreement is present and the verb takes the form of the neutral class IV (marker 0). (4b) shows what is responsible for the unusual case array in (4a): the verb 'hit' governs its full case frame (which is the same as that of 'give') in which the Factitive-Patient (here, 'fist') is the manipulated object. This verb shows us that Archi is highly sensitive to the semantic roles of participants.

(5) shows that the Experiencer of a one-place verb is coded by the nominative, which means that with a one-place verb an actant with any elementary role (and not only Agent or Patient) is consistently identified with the hyperrole Factitive.

To summarize: in a simple independent clause the case marking of NPs depends entirely on their role features. The central role of Factitive is iconically emphasized twice: by the presence of the unmarked direct case (nominative) and by agreement. This is shown in Figure 2.

Figure 2. The core structure of a simple independent clause



The word order in Daghestanian languages is not fixed; Figure 2 shows neutral word order.

3.2 Voices

Voices (similar to English passive) are absent in Daghestanian languages, and this characteristic can be considered a direct consequence of ergativity (see Introduction): voice-changing derivations would destroy the principle of role-oriented case coding.

3.3 Semantic role derivation

The absence of voices does not mean that case-changing processes are impossible. However, all instances of case change prove to reflect not syntactic transformations but rather changes in the semantic roles of actants.

(6) a. doš-mi-s $\bar{x}_{o}$alli bo-q'i
sister,REC,DAT bread,FAC,NOM,III give,IMP,III
Give the bread to sister.

b. doš-mi-rak $\bar{x}_{o}$alli bo-q'i
sister,MEANS,LOC bread,FAC,NOM,III give,IMP,III
Give the bread to sister for somebody else.

The difference between (6a) and (6b), which is manifested superficially by a switch from dative to locative case, is conditioned by the semantic role of the actant 'sister'. In (6a) the sister has the role of Addressee-Recipient while in (6b) she is the intermediate point of the process of giving, i.e., has the role Means, which is coded by the locative case.

LAK

(7) a. gwana-l c$_{o}$uku iik'undi
he,AG,ERG thief,FAC,NOM kill,PAST
He killed the thief (intentionally).

b. gwana-ša c$_{o}$uku iik'undi
he,SOURCE,LOC thief,FAC,NOM kill,PAST
He killed the thief (unintentionally).

In (7a) 'he' is Agent and responsible for the death of the thief, while in (7b) 'he' is the Source of the action. This is the reason for the change of case marking from ergative to locative.

BEZHTA

(8) a. is-t'i łi RarLol-ca
brother,ERG water,NOM boil,PRES
The brother boils the water.

b. is (łi-d) RarLol-daa-c
brother,NOM water,INST boil,PRES,ANTI-PASS
The brother is capable of boiling/is competent to boil (water).

In (8b) the antipassive derivation of structure (8a) is presented. It is not functionally symmetrical to the passive of syntactically accusative languages; in this respect the Daghestanian antipassive is essentially different from the antipassive of Dyirbal, which organizes topic chains (see Dixon 1972). In (8b) there is a valence reduction: the verb has become a one-place one. Consequently the actant 'brother' is interpreted as Factitive and marked by the nominative case. The patient argument 'water' is no longer a core actant of the verb (it is not a NP of one of the types represented in Figure 2) but an Oblique. It is optional and usually absent in such sentences, and when present it necessarily has generic meaning.

3.4 Semantic derivation of predicates

In Daghestanian languages there is a class of labile verbs which have both two-place <Agent, Factitive> and one-place <Factitive> case frames:

(9) a. buwa-mu waIrt'i a-b-q'u
mother,ERG cup,NOM,III break,PAST,III
The mother broke the cup.

b. waIrt'i a-b-q'u
cup,NOM,III break,PAST,III
The cup broke.

The important difference between (9a) and (9b) is that (9b) lacks an agentive NP in the ergative. The core component is the same in both instances:

NP + ______ -V
FAC=NOM

There also exists a causative which adds an Agent to a verb lacking one as in (10a-b), (11a-b).

(10) a. buwa d-irx$_{o}$ni
mother,NOM,II work,PAST,II
The mother worked.

b.

bošor-mu	buwa	d-irx̥m-us	a-r-u
man,ERG	mother,NOM,II	work,INF,II	do,PAST,II

The man caused the mother to work.

(11) a.

buwa-mu-s	mul	a-b-k̄u
mother,DAT	mountain,NOM,III	see,PAST,III

The mother saw the mountain.

b.

bošor-mu	buwa-mu-s	mul	a-b-k̄-us	a-b-u
man,ERG	mother,DAT	mountain,NOM,III	see,INF,III	do,PAST,III

The man caused the mother to see the mountain, or
The man showed the mountain to the mother.

It is interesting that the causative derivation applied to the experiential verb 'see' (11a) generates the verb 'show' (11b), where the roles of Addressee and Factitive have the same case marking as they would with the source verb 'see'.

In Archi, as in many other Daghestanian languages, causativization of agentive verbs is impossible, since then the derived structure would have two NPs with the role of Agent. In the few Daghestanian languages which allow such causatives, the Agent of the primary sentence receives the locative marker in the derived sentence:

CHAMALAL

(12) a.

oši	woha	un
he,ERG	tree,NOM	push

He pushed the tree.

b.

de	oš-uč'	woha	un-al
I,ERG	he,LOC	tree,NOM	push,CAUS

I caused him to push the tree.

This is far from being a pure syntactic shift of the case of the Agent. The semantics of causation in this case presupposes the presence of a second noun argument with the Oblique role: "X did something (P) toward Y". This Y receives the locative marker while a coreferential Agent in the embedded clause is deleted (coreferential NP-deletion is entirely typical for Daghestanian languages, as noted below).

3.5 Nominalization

Examples with nominalized sentences (corresponding to (1)-(2) above):

(13) a. bošor w-irx$_{o}$-mul
man,NOM,I work,I,NMLZR
man's work

b. bošor-mu buwa daaɬ=du-k-mul
man,ERG mother,NOM,II beat,II,NMLZR
the man's beating of mother

It is easy to see that the internal structure of these sentences, including the cases of NPs, remains constant. Nominalization is marked by addition of the suffix *-mul* to the verb as head of the sentence. This verb becomes a noun and can receive the case form required by the matrix sentence.

3.6 Reflexivization

It is interesting that several Daghestanian languages preserve the syntactic type described above as neutral, even in the presence of reflexivization:

DARGWA

(14) a. it-e čej ix̄I-ib
he,ERG REFL,NOM save,PAST
He saved himself.

b. it či-ne ix̄I-ib
he,NOM REFL,ERG save,PAST
He saved himself.

In (14a) the first NP, the Agent, controls reflexivization, and the second one, the Factitive, is the target of reflexivization. In (14b) the semantic roles (and hence the cases) of the controller and target are reversed, but the word order is the same: controller + target. Reflexivization is determined by the word order of NPs rather than their semantic or syntactic function.

3.7 Relativization

In (15a) the primary base structure with the three-place verb 'give' is exemplified, while (15b-d) show derived constructions with different targets of relativization.

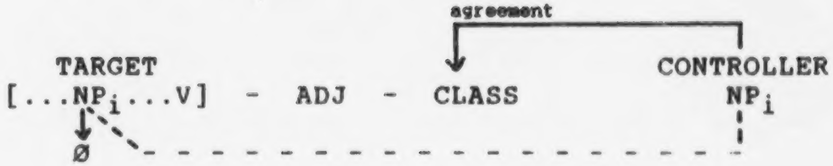
(15) a. tuxt'ul-li bošor-mu-s č'or Ø-Lo
doctor,ERG man,DAT pill,NOM,IV give,PAST,IV
The doctor gave the pill to the man.

b. Ø bošor-mu-s č'or Ø-Lo-t̄u-w tuxt'ur
ERG man,DAT pill,NOM,IV give,PAST,IV-ADJ,I doctor,I
the doctor who gave the pill to the man

c. tuxt'ul-li bošor-mu-s Ø Ø-Lo-t̄u-t č'or
doctor,ERG man,DAT NOM give,PAST,IV-ADJ,IV pill,IV
the pill that the doctor gave to the man

d. tuxt'ul-li Ø č'or Ø-Lo-t̄u-w bošor
doctor,ERG DAT pill,NOM,IV give,PAST,IV-ADJ,I man,I
the man to whom the doctor gave the pill

The target of relativization, whatever its role, undergoes deletion, but otherwise the structure of the source sentence remains without change. The verb as the head of the clause acquires the adjectival suffix *-t̄u*. Then the clause, as an adjective, receives external agreement with the head noun. In (15c) the head noun and the Factitive of the embedded relative clause are coreferential and the verb has two markers of class IV (prefix marking internal agreement, suffix marking external agreement). In (15b) and (15d) the controllers of internal and external agreement are different. Nevertheless, there are no restrictions on relativization. Schematically, relativization can be presented in the following manner:



3.8 Complementation

There is a widespread opinion that coreference relations in the context of verbs like 'want' are universally restricted and follow the accusative pattern (Dixon 1979). This statement is in contradiction with the following data:

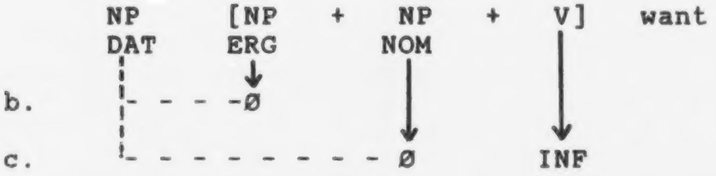
CHAMALAL

(16) a. wac-ud jac č'in
brother,ERG sister,NOM beat,PAST
The brother beat the sister.

b. wac-ɬa $_{s}$[Ø jac čiina]$_{s}$ idalaq iko̍
brother,DAT ERG sister,NOM beat,INF want NEG
The brother does not want to beat the sister.

c. jac-ɬa $_{s}$[wac-ud Ø čiina]$_{s}$ idalaq iko̍
sister,DAT brother,ERG NOM beat,INF want NEG
The sister does not want to be beaten by the brother.

(16a) represents the initial structure of the sentence, which is embedded in (16b-c) as a complement of the verb 'want'. In (16b) the coreferential Agent undergoes deletion and the verb receives the infinitive marker; in (16c) the Factitive is deleted. There are no restrictions on coreference of nominal actants (for details see Kibrik 1987). Schematically, complementation is organized as follows:



3.9 Coordination

Coordinated constructions have no restrictions on what can undergo conjunction reduction, as can be demonstrated with the following data:

CHAMALAL

(17) a. $_S[$ wac w-i'a $]_S$ $_S[$ Ø jac č'in $]_S$
brother,NOM come,PAST,I ERG sister,NOM beat,PAST
The brother came and beat the sister.

b. $_S[$ jac n-i'a $]_S$ $_S[$ wac-ud Ø č'in $]_S$
sister,NOM come,PAST,II brother,ERG NOM beat,PAST
The sister came and was beaten by the brother.

In the second conjunct it is possible to delete either a coreferential Agent (17a) or a coreferential Patient (17b) without ambiguity. The NP of the first conjunct controls conjunction reduction.

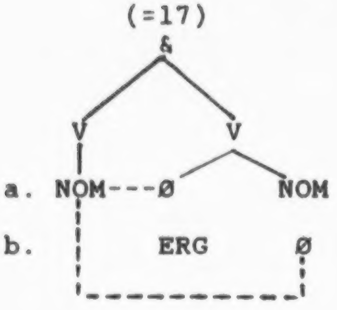
How is it possible to avoid ambiguity when the first conjunct has a two-place verb? One of the possibilities is as follows:

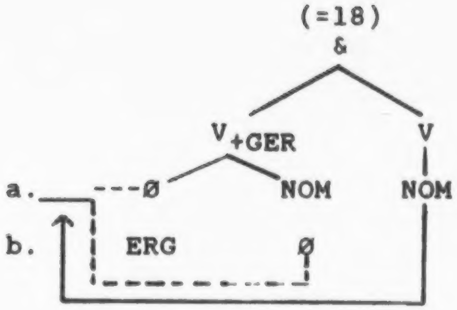
(18) a. wac $_S[$ Ø jac-la č'iin $]_S$ w-exa w-una
brother,NOM ERG sister,NOM,EMPH beat,GER go,II be,PAST,II
The brother beat the sister and left.

b. jac $_S[$ wac-ud-la Ø č'iin $]_S$ j-exa j-ina
sister,NOM,II brother,ERG,EMPH NOM beat,GER go,II be,PAST,II
The sister was beaten by the brother and left.

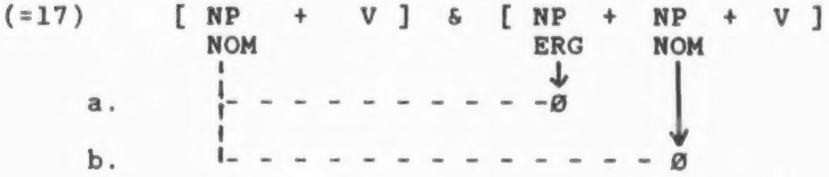
In this case, the NP of the second conjunct becomes left-dislocated by the embedding of the first conjunct into the second. This is clearly seen from the case marking of the first nominal, and also by the agreement of the second verb with this nominal. The technique of conjunction reduction remains the same (with the exception of emphasizer *-la*, which usually is added to the full NP), without involving ambiguity.

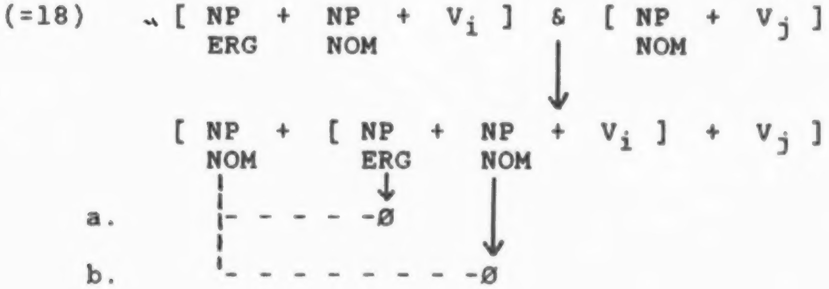
Schematically, conjunction reduction can be represented in the following manner:





OR:




(=18)
[NP + NP + Vi] & [NP + Vj]
ERG
NOM
NOM
[NP + [NP + NP + Vi] + Vj]
NOM
ERG
NOM
a.
-Ø
b.
-Ø

4 Summary

The data of semantically ergative languages shows that a pattern of syntactic organization is possible in which all syntactic processes apply irrespective of the roles of the NPs. Such a pattern allows the language to consistently follow the principle of role determination of case marking.

Of course the real situation is much more complex and varied. There are many instances of apparent deviation from syntactic neutrality, but closer analysis of these deviations usually shows that there is semantic motivation of the surface linguistic form (see Kibrik 1987).

One of my main goals in this paper has been to demonstrate the existence of languages whose core structure is determined by the principle of consistent differentiation of semantic roles by means of case coding; that is, to demonstrate the existence of role-oriented languages. If we refrain from interpreting role-oriented languages in terms of subject and direct object, then their organization becomes extremely natural, simple, and motivated. At the same time we gain the hope that by starting with languages of pure types we can reach a deeper and more adequate understanding of the structure of mixed languages.

ABBREVIATIONS

A,AG	agent
ACC	accusative
ADJ	adjectivizer
ANTI-PASS	antipassive
CAUS	causative
DAT	dative
EMPH	emphasizer
ERG	ergative
EXP	experiencer
FAC	factitive
I,...IV	noun class I,...IV
IMP	imperative
INF	infinitive
INST	instrumental
LOC	locative
N	nominative
NEG	negative
NMLZR	nominalizer
P	patient
PRES	present
REC	recipient
REFL	reflexive

REFERENCES

Chafe, W. 1976. Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In: C. Li, ed., *Subject and topic*. New York: Academic Press.

Comrie, B. 1978. Ergativity. In: W.P. Lehmann, ed., *Syntactic typology: Studies in the phenomenology of language*. Austin: University of Texas Press.

Dixon, R.M.W. 1972. *The Dyirbal language of North Queensland*. Cambridge: Cambridge University Press.

Dixon, R.M.W. 1979. Ergativity. *Language* 55:1.

Fillmore, C. 1968. The case for case. In: E. Bach and R.T. Harms, eds., *Universals of linguistic theory*. New York: Holt, Rinehart and Winston.

Givón, T. 1979. *On understanding language*. New York: Academic Press.

Givón, T. 1984. *Syntax: A functional-typological introduction*. Volume 1. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Harris, A.C. 1981. Georgian syntax: A study in relational grammar. *Cambridge studies in linguistics* 33: Cambridge University Press.

Hopper, P. & S. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56.

Kibrik, A.E. 1979a. Podlezhashchee i problema universalnoj modeli jazyka. Izvestil AN SSSR. *Seria literatury i jazyka* N4.

Kibrik, A.E. 1979b. Canonical ergativity in Daghestan languages. In: F. Plank, ed., *Ergativity: Towards a theory of grammatical relations*. New York: Academic Press.

Kibrik, A.E. 1979-81. Materialy k tipologii ergativnosti. In: *Institut russkogo jazyka*. Predvaritelnye publikatii. Vypuski 126,127,128,129,130,140,141, Moskva.

Kibrik, A.E. 1985. Toward a typology of ergativity. In: J. Nichols and A. Woodbury, eds., *Grammar inside and outside the clause*. Cambridge: Cambridge University Press.

Kibrik, A.E. 1987. Constructions with clause actants in Daghestanian languages. *Lingua* 71.

Klimov, G.A. 1972. *Ocherk obshchej teorii ergativnosti*. Moskva: Nauka.

Li, C., ed. 1976. *Subject and topic*. New York: Academic Press.

Li, C. & S. Thompson. 1976. Subject and topic: a new typology of language. In: C. Li, ed., *Subject and Topic*. New York: Academic Press.

Mel'čuk, I. 1988. *Dependency syntax: theory and practice*. Albany: State University of New York Press.

Plank, F. 1979. Ergativity, syntactic typology, and universal grammar. In: F. Plank, ed., *Ergativity: Towards a theory of grammatical relations*. New York: Academic Press.

Schachter, P. 1977. Reference-related and role-related properties of subjects. In: P. Cole and J. Sadok, eds., *Syntax and semantics 8: Grammatical relations*. New York: Academic Press.

Seki, L. 1990. Kamaiura (Tupi-Guarani) as an active-passive language. In: D. Payne, ed., *Amazonian linguistics: Studies in lowland South American languages*. Austin: University of Texas Press.

Tchekhoff, C. 1978. *Aux fondaments de la syntaxe: l'ergatif*. Paris: Presses Universitaires de France.

Van Valin, R. 1981. Grammatical relations in ergative languages. *Studies in Language* 5.

Van Valin, R. (in press). An overview of ergative phenomena and their implications for language acquisition. In: D. Slobin, ed., *The cross-linguistic study of language acquisition*. Vol. 3. Hillsdale, NY: Lawrence Earlbaum Assoc.

Wierzbicka, A. 1990. *Lingua mentalis*. New York: Academic Press.

THE DEFINITE ARTICLE WITH PROPER NAMES FOR REFERRING TO PEOPLE IN THE GREEK OF ACTS[1]

Stephen H. Levinsohn

1 Introduction
2 The unmarked patterns
3 The reintroduction of participants
4 Anarthrous references to on-stage participants
  4.1 Switches of attention
    4.1.1 Switches from a less salient to a more salient participant
    4.1.2 Switches from one major participant to another
  4.2 Anarthrous references to key speeches
5 The article with names in reported speeches

1 Introduction

Proper names in Koine Greek occur sometimes with a preceding article and sometimes without one. For example, both *ho Galliōnos* (the Gallio) and *Ø Galliōnos* (Gallio) occur (Acts 18:14,12). Insofar as a consensus among Greek grammarians exists, it is that names of persons normally are not preceded by the article (they are **anarthrous**), but may be preceded by the article (be **arthrous**) if the reference is anaphoric. However, Winer (1882:140) considers that, in fact, the use of the article with proper names "can hardly be reduced to any rule".

Nevertheless, if one concentrates on individual New Testament authors, rather than trying to generalize across all writers, the use of the article with proper names is quite systematic. In particular, in the Greek of the Acts of the Apostles, the presence versus absence of the article is related to two main factors: the **status** of the participant (whether, at the macrolevel, s/he is the central character or not) and the local **salience** of the participant and/or the action(s) he performs.

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[1] This article is based on Heimerdinger and Levinsohn forthcoming. The theme is considered also in Levinsohn forthcoming.

Comrie (1989:199) says that "salience relates to the way in which certain actants present in a situation are seized on by humans as foci of attention". Thus, out of the cast of participants involved in events being described by an author, one or two may be marked as being most salient to the story at that point. Such participants are the ones that the listener or reader should focus upon, presumably because of the significant acts in which they will be involved.

Hopper and Thompson (1984:719) have shown that, in many languages, the presence versus the absence of words like 'one' or 'a certain', in connection with the **introduction** of a participant, depends on whether or not "it figures in the discourse as a salient participant". See, for instance, the following example which they cite (ibid.) from modern Hebrew. In (1a), the use of the word for 'one' indicates that 'book' is locally salient, and indeed it becomes the topic of the following clause. In (1b), the word for 'one' is not used, since 'book' is not salient; it features no more in the discourse.

(1) a. I sat there and read a book (*sefer-exad*), and it was an excellent book.
b. I read a book (*sefer*), and a couple of newspapers, and then went home.

It should therefore not be a surprise that, once a participant has been introduced, **further references** to him or her also indicate whether or not s/he is salient. Indeed, various articles describe how particular forms of reference identify the "thematic character" (Grimes 1975:337f; see also Newman 1978:96) or "thematic participant" (Levinsohn 1978) of a section of text.

Before discussing in detail the factors which determine the presence versus absence of the article with proper names in Acts, I need to point out that non-declinable names (i.e., those of non-Greek origin) typically are arthrous when not in the nominative (e.g. *ton Isaak* 'the Isaac' in Acts 7:8), presumably to indicate the case of the noun.[2]

An exception to the rule just stated involves named possessors in articular possessive phrases. In such phrases, it is the norm for the possessor to be anarthrous, even if the noun is not declinable (e.g. *ton Saoul huion Ø Kis* 'the Saul son [of] Kis', Acts 13:21).[3] (See Sect. 2 for one circumstance under which reference to a named possessor is arthrous.)

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[2] However, see Teeple 1973:303. Heirmerdinger (personal communication) also considers it possible "that it is not case which affects the article with O.T. names" and that the conclusions of the present article, as they involve such names, "will only work with certain MSS".

I now consider the presence versus absence of the article with proper names, for people in the book of Acts, using the following four categories of description:

- the unmarked patterns involving the first mention of a participant and further references to the participant in the same incident (Sect. 1);
- the reintroduction of participants after an absence (Sect. 2);
- further references to a participant in the same incident which are anarthrous, instead of arthrous (Sect. 3);
- the use of the article with names in reported speeches (Sect. 4).

By dividing my discussion into four parts, I do not mean to imply that I am illustrating different principles. Rather, in different contexts, they illustrate a single principle: ***ANARTHROUS REFERENCES TO PARTICULAR, KNOWN PARTICIPANTS EITHER MARK THE PARTICIPANT AS LOCALLY SALIENT, OR HIGHLIGHT THE SPEECH WHICH S/HE UTTERS.***

2 The unmarked patterns

When a participant is first mentioned, reference to him or her by name typically is **anarthrous**. However, once s/he has been (re)introduced, subsequent references to him or her by name within the same incident are **arthrous**.

The references to Gallio in Acts 18:12,14,17, shown in (2) below, illustrate this pattern. The introductory reference to him in v12 is anarthrous. Subsequent references, however, are arthrous.

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[3] Heirmerdinger (personal communication) disagrees: "When all the examples of a dependent genitive in an articular phrase are considered, it is found that the article is retained whenever the reference to the person is anaphoric. When the article is omitted, the reference is either a set phrase like 'the name of Jesus'... or a first mention."

(2) Acts 18:12-18

	subject	*non-subject*	*summary of contents*
v12	0 Gallio		(was proconsul)
	(the Jews)	the Paul	(attacked)
v14	the Paul		(was about to speak)
	the Gallio	(the Jews)	(said to)
v17	(all)	0 Sosthenes	(turned on)
		the Gallio	(nothing mattered to)
v18	the Paul	(the brothers)	(left)
	0 Priscilla & Aquila		(with him)

The above pattern concurs with the assertion made in grammars of Greek that one of the reasons for using the article is when the referent of the noun concerned is "known, particular, previously mentioned" (Blass, Debrunner and Funk 1961, Sect. 252). However, it does NOT follow that, when the article is absent, the referent concerned is necessarily not known, not particular, not previously mentioned. (For instance, see the anarthrous reference in 18:26 to Priscilla and Aquila who had already been mentioned in v18.)

3 The reintroduction of participants

The reintroduction of a participant in a new incident may be arthrous or anarthrous. The determining factors are whether or not there is a single **central character** on stage around whom the section of the story is organized, and whether the participant being reintroduced is **salient** or not. The basic principle is as follows:

- reintroductions of the central character of the section, after a temporary absence, are arthrous (s/he is apparently assumed to be in the wings, under such circumstances, rather than being genuinely reintroduced);
- reintroductions of salient participants other than the central character are anarthrous.

The first half of the book of Acts features several Christian leaders (Peter, Stephen, Philip) who perform acts of significance to the story, i.e., they are salient. Whenever any of them is reintroduced after an absence, reference to him is anarthrous (provided he is locally salient, of course). None of them is treated as the central character.

For example, in chapter 12 ((3) below), Peter is reintroduced in v3 with an anarthrous reference; further references to him by name in vv5-16 are arthrous (as per the principle of Sect. 1). These include an arthrous reference in a possessive phrase in v14 (*tēn phōnēn tou Petrou* 'the voice of the Peter'). (Other anarthrous reintroductions of Peter after an absence include 3:1, 8:14, 9:32, 10:9, 11:2.)

Similarly, the reintroductory reference to Barnabas and Saul in v25 is anarthrous, as is the reintroductory reference to Herod in v19 (scarcely a Christian leader, but a salient participant at this point in the narrative).

(3) Acts 12:1-13:1

	subject	*non-subject*	*summary of contents*
v1	Ø Herod	(some of the church)	(arrested)
v2		Ø James	(killed)
v3		Ø Peter	(arrested)
v5	the Peter		(was kept in prison)
v6	the Herod	(him)	(was about to bring out)
	the Peter		(was sleeping)
v7	(angel of.Lord)		(appeared)
		the Peter	(struck on side)
	. . .		
v11	the Peter		(came to himself)
v12		of the Mary the mother of John Mark	(went to the house)
v14	(maidservant)	of the Peter	(recognized the voice)
	. . .		
v16	the Peter		(kept on knocking)
	. . .		
v19	Ø Herod		(searching...)
v20		(Tyrians & Sidonians)	(was angry with)
		Ø Blastus	(having persuaded)
v21	the Herod		(sat on throne)
	. . .		
v25	Ø Barnabas & Saul		(returned from Jerusalem)
13:1	the Barnabas...		(list of prophets, etc.)

In the second half of the book, however, there is generally only one major Christian leader: Paul. Once he has been established as the main protagonist (single central character), reintroductory references to him, after an absence, typically are arthrous. See, for example, 18:18 (in (2)) and 25:23 (following the conversation between governor Felix and king Agrippa). (In the first half of the book, in contrast, reintroductory references to Paul are usually anarthrous; e.g. 12:25 in (3). A fascinating exception is 9:1.)

Exceptions to this last pattern are limited to occasions when another salient participant was on stage and Paul was definitely absent (not just in the wings). Thus, his reintroduction in 19:1 of (4) follows a section on the activities of Apollos (18:24-28), during which Paul was elsewhere (see v21).

(4) Acts 18:21-19:1

	subject	*non-subject*	*summary of contents*
v21	(he [Paul])		(set sail from Ephesus)
	. . .		
v24	Ø Apollos		(came to Ephesus)
v26	Ø Priscilla & Aquila	(him)	(heard)
	. . .		
19:1	the Apollos		(was at Corinth)
	Ø Paul		(arrived at Ephesus)

Throughout the second half of the book of Acts, participants other than Paul are reintroduced anarthrously, if they are judged to be salient to the story. For example, Priscilla and Aquila are reintroduced anarthrously in 18:18 of (2) and again in 18:26 of (4).

Participants who are NOT locally salient are (re)introduced by name with the article employed. See, for example, 15:37 *ton Iōannēn ton kaloumenon Markon* 'the John the called Mark', cited in (6).

4 Anarthrous references to on-stage participants

Further references to on-stage participants normally are arthrous, as implied by the principle stated in Sect. 1. Anarthrous references to on-stage participants reflect the relative salience of the participant and/or the action(s) that s/he performs. I consider such references in two subgroups: those that involve a switch of attention to a salient participant (Sect. 4.1), and those that occur in connection with the introduction of a key speech (Sect. 4.2).

4.1 Switches of attention

Anarthrous references to participants in connection with **switches of attention** to a salient participant may involve a switch: i) from a less salient to a more salient participant, or ii) from one salient participant to another.

4.1.1 Switches from a less salient to a more salient participant

One example of such a switch is 8:39f ('... the eunuch did not see him [Philip] again, but went on his way rejoicing. Philip [*Ø Philipos*], however, appeared at Azotus...'). In the passage preceding this, in vv29-39a, the seven references to Philip by name have all been arthrous, as per the principle of Sect. 1, which says that, once (re)introduced, further references to a named participant in the same incident are arthrous. However, when the eunuch leaves the scene (v39) and attention switches from him to what happened to Philip, the reference to the latter is anarthrous.

In some passages, there are a series of switches from a less salient to a more salient participant. In 7:58-8:3 of (5) below, for instance, the references in 7:59 and 8:2 to Stephen are arthrous (he is rapidly becoming non-salient!). Saul is introduced anarthrously to the book in a possessive phrase in 7:58. What is noteworthy is that, when attention switches to him again in 8:1 and 8:3, the references again are anarthrous, as befits switches to a salient participant.

(5) Acts 7:58-8:3

	subject	*non-subject*	*summary of contents*
v58	(the witnesses)	Ø Saul	(laid their clothes at feet of)
v59		the Stephen	(stoned)
8:1	Ø Saul		(was approving of his death)
v2	(godly men)	the Stephen	(buried)
v3	Ø Saul	(the church)	(began to destroy)

A similar pattern is found in the opening verses of chapter 3, in the interaction between the lame man and Peter. Each time attention switches to Peter, references to him are anarthrous (vv4,6; see also v3). From the perspective of the story as a whole, Peter, rather than the lame man, is the salient participant.

4.1.2 Switches from one major participant to another

Acts 15:36-40 illustrates a series of such switches, involving Paul and Barnabas. Of particular note is the arthrous reference to Barnabas in v39b, at the point that he leaves the scene and ceases to be salient to the story.

(6) Acts 15:36-40

	subject	*non-subject*	*summary of contents*
v36	Ø Paul	Ø Barnabas	(said to)
v37	Ø Barnabas	the John the called Mark	(wanted to take)
v38	Ø Paul		(did not think it wise)
v39	(they)		(parted company)
	the Barnabas	the Mark	(took, sailed for Cyprus)
v40	Ø Paul	Ø Silas	(chose)

(6) involved contrastive switches of attention from one salient participant to another. (7) illustrates switches of attention which do NOT involve contrast: as attention switches to Peter (15:7), to Barnabas and Paul (v12) and to James (v13), each reference is anarthrous.

(7) Acts 15:6-13

	subject	*non-subject*	*summary of contents*
v6	(the apostles & elders)		(met)
v7	Ø Peter		(said)
v12	(the whole assembly)		(was silent)
		Ø Barnabas & Paul	(heard)
v13	(they)		(finished)
	Ø James		(spoke up)

4.2 Anarthrous references to key speeches

Anarthrous references to participants who make a **key speech** appear to have the rhetorical effect of marking that speech as of particular salience. Such cases differ from those considered in Sect. 4.1.1, in that they involve, not a switch of attention to a different participant, but a response by the addressee of the last speech. In such contexts, references to the speaker are typically anarthrous only if the speech is the key one of the incident concerned.

In 10:25ff, for example, references to the speakers are arthrous, until the key speech of vv34ff, which is introduced by an anarthrous reference to Peter.

(8) Acts 10:25-34

	subject	*non-subject*	*summary of contents*
v25	the Peter		(entered)
	the Cornelius	(him)	(meeting)
v26	the Peter	(him)	(raised, saying)
	. . .		
v30	the Cornelius		(said)
v34	Ø Peter		(said [key speech])

5 The article with names in reported speeches

In reported speeches, as in narrative, anarthrous references to participants who have already been mentioned indicate that the participant is salient to the argument. For example, in Stephen's speech in chapter 7 ((9) below), different historical characters in turn become salient. In the case of Moses, each time attention switches to him, the reference is anarthrous (vv22,29,32b). Only in v31 is the reference arthrous, reflecting the fact that, at this point, he is only a spectator, rather than an active participant in the story.

(9) Acts 7:8-32

	subject	*non-subject*	*summary of contents*
v8	(he)	the* Isaac	(begat) [*non-declinable]
	Ø Isaac	the* Jacob	(begat)
	Ø Jacob	(the 12 patriarchs)	(begat)
	. . .		
v20	Ø Moses		(was born)
v21	(the daughter of.Pharaoh)	(him)	(took)
v22	Ø Moses		(was trained)
	. . .		
v29	Ø Moses		(fled)
v30	(angel)	(him)	(appeared to)
v31	the Moses		(seeing, was wondering at sight)
	(his)		(approaching)
	(voice of.Lord)		(became)
v32	Ø Moses		(trembled with fear)

One feature to remember about reported speeches is that, even if a participant has already featured in the narrative in which a speech is embedded, the initial reference in the speech may be anarthrous because, as far as the speaker is concerned, the reference is a first mention. For example, in 10:32, Cornelius tells Peter that the angel who had appeared to him said, 'Send to Joppa for Simon [*Ø Simōna*]...').

Contrast 13:2, in which the Holy Spirit speaks to the group of prophets and teachers assembled in Antioch. When He says, 'Set apart for me Barnabas and Saul...', reference to them is arthrous (*ton Barnaban kai Saulon*), since they are present when the speech is made, and are not being introduced to the **addressees** for the first time.

Thus, the presence versus the absence of the article with proper names for people in the Greek of the Acts of the Apostles is systematic; it is likely to be so also with other writers.

This use or omission of the article with proper names is part of a larger picture which encompasses the use or omission of the article with nouns in general. In Levinsohn 1989, an article which primarily concerns constituent order in the book of Galatians, I describe how the presence or absence of the article with such nouns as *theos* 'God' and *pneuma* 'spirit' indicates whether the constituent concerned is rhematic (the most important piece of new information in the sentence), or whether it is simply part of the thematic information which leads up to the rheme. Such a description may readily be rephrased in terms of the salience of constituents which are anarthrous.

Thus, in Galatians 3:11 ((10) below), which the Revised Standard Version translates, 'Now it is evident that no man is justified before God by the law', the salient constituents are 'evident, clear' (*dēlon*), 'no man' (*oudeis*) and 'by law' (*en nomō*). If read orally, taking into account the context, stress will fall on some or all of these constituents, but not on 'before God' (*para tō theō*), since the reference to God is not particularly salient; rather, it is supportive of the salient constituents and consequently is arthrous.

(10) Galatians 3:11

hoti de en nomō oudeis dikaioutai *para tō theō* delon
that now by law no.one is.justified before the God clear

In 2:19, in contrast, 'to God' (*theō*) is contrasted with 'to law' (*nomō*), both being central or salient to the argument. Consequently, references to God and to law are anarthrous.

(11) Galatians 2:19

egō gar dia nomou nomō apethanon, hina *theō* zēsō
I for through law to.law I.died that to.God I.might live

References to 'the Spirit' in Galatians 3:2b (arthrous) and v3b (anarthrous) illustrate the operation of the same principle.

(12) Galatians 3:2b-3

v2b ex ergōn nomou *to pneuma* elabete ē ex akoēs pisteōs
by works of.law the Spirit you.received or by hearing of.faith

v3a houtōs anoētoi este;
thus foolish you.are

v3b enarxamenoi *pneumati* nyn sarki epiteleisthe;
having.begun in.Spirit now in.flesh you.are.perfected

In v2b, it is not necessary to argue that the reference is to the person rather than the power of the Holy Spirit (see Francis 1985:136f). Rather, the reference to the Spirit is supportive, because the focus of the sentence is the contrast between 'by works of law' and 'by hearing of faith', with the presupposition, 'you received the Spirit by some means'. In v3b, however, the contrast between 'in the Spirit' and 'in the flesh' is central or salient, hence the anarthrous references.

In general, then, anarthrous references to a participant who, in Blass, Debrunner and Funk's words (ibid.), is "known, particular", indicate the salience of the participant, whether within the sentence (as in the examples from Galatians) or in the passage as a whole.

REFERENCES

Blass, F., Debrunner, A. and Funk, R.W. 1961. *A Greek grammar of the New Testament*. Chicago: University of Chicago Press.

Comrie, B. 1989. *Language universals and linguistic typology*, 2nd ed. Chicago: University of Chicago Press.

Francis, D.P. 1985. The Holy Spirit: a statistical inquiry. *The expository times* 96,5.136-37.

Grimes, J.E. 1975. *The thread of discourse*. The Hague: Mouton.

Heirmerdinger, J. and Levinsohn, S.H. forthcoming. The use of the definite article before names of people in the Greek text of Acts with particular reference to Codex Bezae.

Hopper, P.J. and Thompson, S.A. 1984. The discourse basis for lexical categories in universal grammar, *Language* 60.703-52.

Levinsohn, S.H. 1978. Participant reference in Inga narrative discourse, in ed. J. Hinds, *Anaphora in discourse* pp.69-135. Edmonton: Linguistic Research Inc.

_____. 1989. Phrase order and the article in Galatians. *OPTAT* 3,2.44-64.

_____. forthcoming. *Discourse features of New Testament Greek: A coursebook*. Dallas: Summer Institute of Linguistics.

Newman, J. 1978. Participant reference in Longuda folk tales, in ed. J.E. Grimes, *Papers in discourse* pp.91-104. Dallas: Summer Institute of Linguistics.

Teeple, H.M. 1973. The Greek article with personal names in the Synoptic Gospels, *New Testament studies* 19,3.302-17.

Winer, G.B. 1882. *A treatise on the grammar of New Testament Greek*. Edinburgh: T. and T. Clark.

ON THE SYLLABIFICATION OF /tl/ CLUSTERS IN SPANISH*

Steve Parker

1 Introduction
2 The problem
3 Design of the test
4 Administering the test
5 Results of the test
6 Conclusion
Appendix: Statistical summary of the test results

1 Introduction

As is commonly known, permissible word- and syllable-initial consonant clusters in Spanish consist of a stop (*p t k b d g*) or *f* followed by one of the two liquids *r* or *l*. Of the fourteen theoretically-possible combinations which these groupings yield, two are problematic:

(1) *Syllable-initial consonant clusters in Spanish*

{p t k b d g f} + {r l}

pr tr kr br dr gr fr
pl ?tl kl bl *dl gl fl

The sequence *dl* does not occur word-initially and its word-internal attestation is limited to second person plural "familiar" commands such as *tomadlo* ('drink it'), which are rarely used outside of Spain. In words of this type the syllable break unquestionably occurs between the *d* and the *l*; since the /d/ in this environment is pronounced as a voiced fricative, it is much higher in sonority than is a voiceless stop such as /t/. Therefore, the phonetic sequence [đl] constitutes a type of sonority clash (cf. Parker 1989) and is consequently split apart during the syllabification process. The sequence *tl* is somewhat more frequent than *dl* since it does occur in a few rather common words, such as *atlas* 'atlas' and *atleta* 'athlete'. However, the cluster *tl* never occurs word-initially except in a few uncommon Aztec loanwords used in Mexico. Thus the question arises of how words such as *atleta* are to be syllabified: *at.le.ta* or *a.tle.ta*?

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This article is organized as follows. First I review some of the relevant literature in order to demonstrate that the correct syllabification of *tl* clusters in Spanish is not at all an uncontroversial issue. I then describe a psycholinguistic test which I designed for the purpose of resolving this controversy. The test is based on a word game which is well-known in the Spanish-speaking world; it requires the speaker to syllabify each word as it is being pronounced. This game was applied to three different words, each one containing an intervocalic *tl* cluster, in order to ascertain the correct syllabification. Next I present the results of the testing, which strongly indicate that word-internal *tl* clusters in Spanish pattern as tautosyllabic onsets. Finally, I discuss the theoretical implications of these findings.

2 The problem

From the early 1970's until the present day, a tremendous amount of literature in the generative and non-linear traditions has been dedicated to exploring the role of the syllable in phonological theory (see, for example, Hooper 1972 and 1976; Lowenstamm 1981; Harris 1983; Itô 1986; Cairns 1988; and Mohanan 1989). In spite of all the advances which have been made in this area, certain basic questions still remain unanswered. For example, the syllabification of word-internal consonant clusters can vary greatly and in unpredictable ways from language to language. Thus, when we encounter the sequence *VtlV* in Spanish, one of the questions which confronts us is how to determine what the correct syllabification is and then demonstrate that our analysis is the best one.

One of the basic parameters which governs syllabification cross-linguistically is the universal tendency to maximize onsets and minimize codas.[1] Cairns

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[1] Although Harris (1983) demonstrates that the notion of a coda constituent is not necessary in the most efficient description of Spanish syllable structure, I take the

(1988:232) calls this principle **ONSETMAX**. In order to determine which word-internal sequences of consonants constitute a well-formed onset cluster in a particular language, we often begin by noting which word-initial onsets are attested in that language. The obvious principle which motivates this procedure is the observation that in a word-initial position, consonant clusters are unquestionably syllable-initial as well. Therefore, many of the intervocalic clusters which occur can unambiguously be syllabified based on the clusters which are attested word-initially. Lowenstamm (1981) calls this algorithm the Maximal Cluster Approach. If we were to base our analysis strictly on this principle by itself, we would posit that in those dialects of Spanish which exhibit word-initial *tl* clusters — all of which are limited to Mexico — the word-internal sequence *tl* should also be syllabified as a tautosyllabic onset. However, the vast majority of Spanish dialects do not exhibit *tl* clusters word-initially, so the Maximal Cluster Approach is not adequate to conclusively resolve the controversy in this case.

As Mohanan (1989:592) demonstrates as well, another problem is that the principle of **ONSETMAX** simply does not hold true for all languages. Because of this fact, situations can arise in which the exact same sequence of intervocalic consonants can be syllabified differently in two or more languages. For example, she gives the following contrastive syllabifications of identical words in two different languages of India:

(2)		*Malayalam*	*Hindi*
/ban̪d̪ʰanam/	—>	ba.n̪d̪ʰa.nam	ban̪.d̪ʰa.nam
/d̪aršanam/	—>	d̪a.rša.nam	d̪ar.ša.nam

Examples such as these illustrate that one of the problems which still confronts us is this: although we can predict with near-absolute certainty how certain word-internal sequences will be syllabified in a given language, there still exist other combinations of segments which, by themselves, do not allow for any such a priori prediction. One of the reasons for this is that syllable boundaries are to a large degree phonetically invisible, i.e., they display no inherent physical manifestation. Hooper (1976:198) similarly comments with respect to this issue that "all

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liberty throughout this article of employing the term "coda" as a convenient abbreviatory device when referring to consonants which occur in the post-nuclear position of the rhyme. In doing this I do not mean to imply that I necessarily disagree with Harris' analysis.

attempts to locate syllable boundaries on a purely physical basis have ... failed." I suggest that *tl* clusters in Spanish are one case in point.

With these thoughts in mind, I consulted a number of grammars, dictionaries, and phonological studies of Spanish in order to determine what consensus, if any, exists concerning the correct syllabification of intervocalic *tl* sequences. What I discovered is that out of a total of thirteen sources, eight claim that word-internal *tl* clusters in words such as *atlas* and *atleta* must be split apart so that the *t* is in the coda of the first syllable and *l* is the lone onset of the second syllable, viz., *Vt.lV* (Stirling 1935; Place and Torres-Rioseco 1943; Martínez 1954; Velázquez 1967; Pei 1968; Quilis and Fernández 1971; Hooper 1976; and Butt and Benjamin 1988).

The following comments summarize Hooper's (1976) explanation of why *tl* clusters are not (in her opinion) tautosyllabic in Spanish. She notes that among the voiceless stops, the coronal /t/ is weaker than either /p/ or /k/. Furthermore, /l/ is stronger than /r/. Therefore, an onset sequence combining *t* and *l* would constitute a strength clash and is consequently prohibited (Hooper 1976:212). Perhaps a more simple and obvious explanation for the proposed non-occurrence of *tl* onsets, if indeed this is the correct analysis, lies in the fact that [t] and [l] are homorganic non-continuants (assuming that laterals are [-continuant]).

However, Hooper (1976) then makes two other observations which appear to contradict her previous assertion that *tl* onsets are prohibited in Spanish. In the first place, she claims that voiceless stops do not normally occur in the coda position in Spanish. Furthermore, she also proposes as a universal constraint that in a bisyllabic sequence having the pattern *VC.CV*, the onset consonant of the second syllable must be stronger than the coda consonant which immediately precedes it (Hooper 1976:215). Curiously, both of these proposals argue that the sequence *VtlV* in Spanish should be syllabified as *V.tlV*, contradicting Hooper's earlier claim that intervocalic *tl* sequences must be heterosyllabic.

Returning to the thirteen sources mentioned above, three of them claim that intervocalic *tl* sequences in Spanish are definitely *not* split between two syllables (Ramsey 1934; Bello and Cuervo 1941; Castillo and Bond 1961). The remaining two sources say that the syllable break varies, allowing for either *V.tlV* or *Vt.lV* (Navarro 1965; Harris 1969 and 1983). Harris is widely recognized as one of the leading authorities on Spanish phonology. His comments at this point are of particular interest:

> Not all dialects have word-initial *tl*. Those that have it also allow *tl* as an internal onset. Of the dialects without initial *tl*, some allow *tl* as an internal onset while others require heterosyllabic *t-l* (Harris 1983:139).

When Harris mentions that certain dialects attest word-initial *tl* clusters, he is referring to Mexicanisms such as *tlaco* and *tlapalería*, which Santamaría (1959) defines respectively as 'a coin used in colonial times' and 'a store which sells materials used in coloring fabrics'. Since both of these words (as well as many others like them) are of Aztec, not Latin or Greek, origin, they do not occur outside of Mexico.

We thus return once more to the question of how to determine the correct syllabification of intervocalic *tl* clusters in those dialects which lack word-initial *tl*. The dialect upon which this study is based — Peruvian Spanish — is one such example. According to Harris, some of these dialects require *tl* clusters to be split while others allow them as tautosyllabic onsets. Given the diversity of opinions on this matter, however, one must ask: what constitutes evidence for determining syllabification in unclear cases? A major type of evidence in phonological analysis is, of course, native speaker reaction. With this in mind, I devised an experiment to resolve this issue by providing tangible, empirical evidence demonstrating which syllabification is preferred by native speakers. I now turn to a description of the test which was designed.

3 Design of the test

As mentioned in the introduction to this article, the popular word game on which the test was designed involves, among other things, dividing a word into syllables. The game is most often referred to as *hablar con (la) p* 'talking with *p*', although other names by which it is known (in Peru, at least) are *tipitopo*, *tuti-fruti*, and *jer(i)gonza*. Relying upon this game, I developed a psycholinguistic test which would require native speakers of Peruvian Spanish to syllabify certain words containing an internal *tl* cluster. The written instructions which were given to each subject were the following (translated from Spanish):

(3) *Instructions*

> I would like to teach you a word game. You may already be familiar with it. This game consists of dividing a word into syllables. After each syllable, you add a *p* and then repeat the same vowel which was just pronounced. For example, if the syllable were *to*, you would add a *p* and then an *o*, and the result would be *to-po*. If the syllable were *mes*, you would say *mes-pe*: first you pronounce the syllable, *mes*, then you add a *p*, and then you repeat the vowel *e*: *mes-pe*. Do you understand? When you come to a word which contains more than one syllable, you should pronounce the word one syllable at a time, adding a *p* and a vowel after each syllable. For example, let's suppose you read the word *gota*. Then you would say *go-po-ta-pa*. If the word were *vestir*, you would say *ves-pe-tir-pi*. If the word were *libro*, you would say *li-pi-bro-po*. Okay? First I'm going to give you a list of ten words to practice with. After that, if you don't have any questions, I'll give you another list of seven words which we will record as you say each word. I would like you to first read each word as you normally pronounce it, and then divide it into syllables as I've just explained. Do you have any questions?

One objection which might be raised at this point is that these instructions contain the technical terms *syllable* and *vowel*. However, these two concepts are very basic and intuitive and did not cause any problems for any of the subjects. The practice list consisted of the following words:

(4) *Practice list*

1. nudo	'knot'
2. aclara	's/he clarifies'
3. usen	'they use (subj.)'
4. artes	'arts'
5. oyera	's/he heard (subj.)'
6. escudo	'shield'
7. abrigo	'overcoat'
8. imitarla	'to imitate her'
9. atrasarse	'to be delayed'
10. enyesando	'plastering (v.)'

After each subject had been given sufficient time to read the instructions, I listened to him or her pronounce the ten words on the practice list while applying the rules of the word game to each one. The purpose of the practice list was two-fold: (a) to provide each subject with sufficient practice before recording the test list, and (b) to screen the subjects in order to ensure that they had properly understood the instructions and could apply the rules of the word game correctly. The ten words which were chosen for the practice list were selected so as to give the subjects at least one example of each type of syllable and word pattern which they would later encounter on their respective test list.

Each subject who successfully completed the practice list was then given one of three test lists. The last word on each test list contained an intervocalic *tl* cluster. Three different target words were used in order to determine whether stress affected the syllabification in any way.

(5) *Test list A*

1. uvas	(u.vas)	'grapes'
2. arden	(ar.den)	'they burn'
3. abres	(a.bres)	'you (sg.) open'
4. obran	(o.bran)	'they labor'
5. ojos	(o.jos)	'eyes'
6. estos	(es.tos)	'these (m.)'
7. atlas	? ? ?	'atlas'

Ś.S

On test list A above, the targeted word was *atlas*. The canonical syllabification of the first six words is given after each item. Each of the seven words is bisyllabic and is stressed on the first syllable. A number of criteria were employed in choosing the words for each test list. All of the words are commonly-known nouns, verbs, or adjectives. I avoided words which have a written accent mark over a vowel, partly because that usually indicates an irregular stress pattern. Furthermore, I avoided words which contain digraphs (silent letters) as well as capitalized words (proper nouns), in order to keep the test list words as simple as possible (thereby maximizing the one-to-one correspondence between letter and phoneme). For the same reasons, I avoided all diphthongs, partly because I was not sure how the rules of the game are supposed to apply to a syllable containing a complex nucleus.

(6) *Test list B*

1. aflige	(a.fli.ge)	's/he/it afflicts'
2. entera	(en.te.ra)	'whole (f.)'
3. oliva	(o.li.va)	'olive'

4. objeto	(ob.je.to)	'object (n.)'
5. agrada	(a.gra.da)	's/he/it pleases'
6. amigo	(a.mi.go)	'friend (m.)'
7. atleta	? ? ? ?	'athlete'

S.Ś.S

(7) *Test list C*

1. anteponga	(an.te.pon.ga)	's/he puts before (subj.)'
etnicismo	(et.ni.cis.mo)	'ethnicism'
2. obligarse	(o.bli.gar.se)	'to obligate oneself'
3. ubicando	(u.bi.can.do)	'placing'
4. ebanista	(e.ba.nis.ta)	'woodworker'
5. agradarle	(a.gra.dar.le)	'to please him/her'
6. ignorante	(ig.no.ran.te)	'ignorant'
7. atletismo	? ? ? ? ? ?	'athletics'

S̀.S.Ś.S

On test list B above, the targeted word was *atleta*. All of the words on this list consist of three syllables and are stressed on the penultimate syllable. On test list C (7), the targeted word was *atletismo*. All of the words on this list have secondary stress on the initial syllable and primary stress on the penultimate syllable. On test list C, the first word is listed both as *anteponga* and *etnicismo*. About one-third of the way through the testing, I came across Hooper's (1976:215) claim that voiceless stops cannot occur in coda position in Spanish (cf. section 2). In order to test whether this is true, I changed the first word on test list C from *anteponga* to *etnicismo*. In the latter word, the /t/ is clearly in a coda position. The results obtained on this test list would then show how this /t/ is handled by native speakers.

4 Administering the test

A total of 288 persons were given a copy of the instructions and the practice list. Of these, 191 (66.3%) satisfactorily completed the practice list and were thus given one of the three test lists. The remaining 97 persons (33.7%) were unable to consistently apply the rules of the game to the words on the practice list, and were therefore not given one of the three test lists.

The most frequent cause for failure on the practice list involved a curious displacement of the affixed syllable (*p* plus vowel) to an unprescribed location in certain types of syllables. That is, there appears to be an alternate set of rules for this game according to which the epenthetic *p* and vowel are attached to closed syllables as an infix rather than as a suffix. In other words, given a syllable such as *tes*, for example, certain subjects pronounced it as *te-pes* rather than as *tes-pe*. What has happened here is that the *p* + vowel syllable has been inserted immediately after the nucleus and *before* the coda consonant, rather than *after* the coda consonant, as directed by the instructions. As John Clifton (personal communication) pointed out, this phenomenon can probably be ascribed to the natural pressure to place the reduplicated syllable as close as possible to the nucleus so as to minimize the distance between the underlying vowel and the epenthetic copied vowel. Before I began the testing I was not aware that this variation of the game existed.

The problem which this phenomenon poses with respect to the results of the experiment is that it makes the syllabification of the *tl* clusters ambiguous for those subjects who infixed rather than suffixed the epenthetic syllable. That is, compare the patterns attested below for those who followed the prescribed version of the game (suffixing the reduplicated syllable) as opposed to those who consistently followed the alternate version and infixed the epenthetic syllable:

(8)	*suffixation* *prescribed pattern*	*infixation* *alternate pattern*
usen	u-pu-sen-pe[2]	u-pu-se-pen
artes	ar-pa-tes-pe	a-par-te-pes

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[2] At the UND colloquium in which this study was first presented, it was pointed out during the discussion period that perhaps the reason why infixation was chosen for words such as *usen* is that suffixation (*u-pu-sen-pe*) would have caused the *n* to be immediately followed by a heterorganic *p*. Therefore, since in Spanish it is so unnatural for a nasal not to be homorganic to a following consonant, infixation would automatically be chosen so as to separate the *n* and the *p*. However, I doubt that this explanation is correct since those subjects who did follow the prescribed rules, suffixing the *p* + vowel syllable, did assimilate the point of articulation of nasals to those of the following consonants. In other words, the transcription *u-pu-sen-pe*, for example, is actually an abstract one, corresponding to Spanish orthographic norms. The actual phonetic transcription of this word would really be [u-pu-sem-pe].

escudo	es-pe-cu-pu-do-po	e-pes-cu-pu-do-po
imitarla	i-pi-mi-pi-tar-pa-la-pa	i-pi-mi-pi-ta-par-la-pa

etc.

Given a consistent pattern of infixation such as noted above in (8) for any particular subject, it would be impossible to tell how a *tl* cluster was being syllabified by such a person. For example, if the targeted word were *atleta*, and the syllabification were *a.tle.ta*, the subject would pronounce it as *a-pa-tle-pe-ta-pa*, with the *t* and the *l* occurring together since in this case they constitute a tautosyllabic onset. However, if the same subject wanted to syllabify this word instead as *at.le.ta*, he or she would pronounce it in a way which would sound exactly the same: *a-pat-le-pe-ta-pa*. In this case the *t* and the *l* would be adjacent not because they were tautosyllabic but because the first epenthetic syllable (*-pa-*) had been infixed between the nucleus (*a*) and the coda (*t*), and the next syllable started with *l*. Since *a-pa-tle-pe-ta-pa* and *a-pat-le-pe-ta-pa* sound the same in normal fast speech, it would be impossible to determine which syllabification was being indicated. Thus, when one of the subjects consistently preferred infixation rather than suffixation while pronouncing the words on the practice list, the interview with him or her was terminated at that point. This accounts for the majority of the 97 persons who failed the practice list and were therefore not given one of the test lists.

Thus a total of 191 recordings were made of the three test lists combined. Of these, 145 subjects (75.9%) gave recordings which proved to be usable in the sense that their pronunciations of the first six test words were consistent. However, the remaining 46 subjects (24.1%) did not completely follow the prescribed instructions when pronouncing the seven test list items, so their test results had to be considered invalid. Once again, the most frequent reason for failure on the test lists was a tendency to infix the reduplicated syllable rather than attaching it as a suffix. I assume that what happened here was that some of these subjects had already learned the game with an infixation rule, which showed up in unguarded speech on the test list, even though they had been more careful when pronouncing the items on the practice list and had been able to manipulate the epenthesis rule in accordance with the prescribed instructions. Thus of 191 total recordings made, 145 were consistent enough to be considered reliable. These 145 recordings then became the corpus upon which the following results are based.

The 145 speakers in the test sample consisted of 85 males and 60 females. Ages ranged from 13 to 53; the mean was 23. The subjects came from 25 different locations in Peru, while one was from Puerto Rico. The testing was carried out in three Peruvian cities – Lima, Pucallpa, and Iquitos – from January 23 to May 25, 1990.

5 Results of the test

I will now discuss the actual test results. On test list A, the targeted word was *atlas*. A total of 45 reliable recordings were made of this list, and all 45 subjects (100%) indicated the syllabification as *a.tlas*, i.e., they pronounced this word as *a-pa-tlas-pa*.

For test list B, 57 usable recordings were made. Of these, 53 subjects (93%) syllabified the targeted word as *a.tle.ta*, as evidenced by the pronunciation *a-pa-tle-pe-ta-pa*. Of the remaining four subjects, two pronounced the targeted word as *a-ta-le-pe-ta-pa*. This probably corresponds to the syllabification *at.le.ta*, although the first epenthetic *p* (which should immediately follow the first *t*), does not appear. One subject gave the pronunciation *a-ta-tle-ta-ta-pa*, which is ambiguous since, on one hand, the first *t* appears to belong to the first syllable, yet the second syllable still displays an initial *tl* cluster. Finally, the one remaining subject gave the pronunciation *a-pa-te-pe-ta-pa*. This too is ambiguous since in this case the /l/ has been dropped off completely.

Regarding test list C, recall that during the course of the testing the first word was changed from *anteponga* to *etnicismo*, the purpose being to test for a syllable-final *t*. A total of 43 valid recordings of this list were made, 13 with *anteponga* and 30 with *etnicismo*. Of the 30 pronunciations of *etnicismo*, 27 (90%) evidenced a clear syllable-final *t*, while the remaining three (10%) did not. These facts appear to contradict Hooper's (1976:215) claim that voiceless stops cannot appear in the coda position in Spanish. Thus, since the option of a syllable-final *t* is clearly available to speakers of Peruvian Spanish, it cannot be argued that the syllabification *V.tlV* is required by default over *Vt.lV*.

Of the 43 total recordings made of the targeted word *atletismo* on test list C, 40 subjects (93%) chose the syllabification *a.tle.tis.mo*, as indicated by the pronunciation *a-pa-tle-pe-tis-pi-mo-po*. Of the remaining three subjects, one gave the pronunciation *a-ta-le-pe-tis-pi-mo-po*. This probably corresponds to the syllabification *at.le.tis.mo* since the *t* and the *l* are split, although once again the expected first *p* (immediately following the first *t*) does not appear. Another subject pronounced the word as *at-pla-le-pe-tis-pi-mi-po*, which could also be interpreted as *at.le.tis.mo*, although interestingly enough, a reduplicated *l* shows up after the first *p*. The one remaining subject gave the pronunciation *a-pa-le-pe-tis-pi-mo-po*, which is ambiguous since in this case the first *t* has disappeared altogether.

The totals for all three word lists combined is 145 recordings, of which 138 (95.2%) indicated a preference for the syllabification *V.tlV*. Four subjects gave a pronunciation which could be interpreted as *Vt.lV*. The remaining three subjects gave results which were ambiguous. It is noteworthy that of the four subjects whose syllabifications might indicate the division *Vt.lV*, not one pronounced the word in a totally canonical way in accordance with the prescribed rules of the game. That is, the exact sequence *at-pa-lV...* was never attested at all.

6 Conclusion

The test results outlined in the previous section strongly indicate that, in Peruvian Spanish, at least, intervocalic *tl* clusters pattern as tautosyllabic onsets. This is especially significant in light of the claims made by Harris (1983), since this dialect lacks word-initial *tl* clusters (cf. section 2). Although the phonological evidence which a word game of this type provides is not the strongest which can be presented in favor of a particular analysis, its importance is enhanced by the fact that there exists so much disagreement among the thirteen consulted sources concerning the syllabification of word-internal *tl* clusters.

It might be objected, as Mark Karan (personal communication) has pointed out, that the results provided by an artificial, game-like situation of this type might be skewed since the prescribed, corpus-external rules might only be reinforcing a previously-learned behavior in the case of those subjects who had actually played the game before taking part in this experiment. In response, it is significant that 62 of the 145 subjects tested (42.8%) had never heard of or played this game before the experiment. These 62 subjects showed no consistent difference in results when compared with the remaining 83 subjects (57.2%) for whom the word game was not a novel experience.

Finally, as John Clifton (personal communication) has pointed out, the ideal would be to allow each subject to use the word game rules which he or she already knows, rather than teaching them prescriptively. However, this proposal suffers from two drawbacks: (a) those who had already learned the game with an infixation rather than a suffixation rule would give ambiguous results (cf. section 4), and (b) this constraint would a priori eliminate as potential subjects all those who had never heard of the game before. What *would* make for an interesting study, as Clifton further observed, would be to present the game to illiterate adults and/or pre-literate children in order to see if there had been any influence from hyphenation rules learned in school among the subjects of the initial study. If non-literates did in fact perform the same way as literates, this would constitute stronger evidence that the syllabification *V.tlV* was in some way more basic. Perhaps that is the next step which should be taken.

APPENDIX: STATISTICAL SUMMARY OF THE TEST RESULTS

(1) total interviewed = 288
number recorded = 191 (66.3%)
number not recorded = 97 (33.7%)

(2) total recordings = 191
valid recordings = 145 (75.9%)
inconsistent recordings = 46 (24.1%)

(3) *atlas* (list A)
number recorded = 45
a.tlas = 45 (100%)

(4) *atleta* (list B)
number recorded = 57
a.tle.ta = 53 (93%)
at.le.ta (probably) = 2 (3.5%)
ambiguous = 2 (3.5%)

(5) *atletismo* (list C)
number recorded = 43
a.tle.tis.mo = 40 (93%)
at.le.tis.mo (probably) = 2 (4.7%)
ambiguous = 1 (2.3%)

(6) total for the three word lists combined
number recorded = 145
V.tlV = 138 (95.2%)
Vt.lV (probably) = 4 (2.8%)
ambiguous = 3 (2.1%)

(7) *etnicismo* (list C)
total recorded = 30
number pronounced with syllable-final *t* = 27 (90%)
number pronounced without syllable-final *t* = 3 (10%)

ABBREVIATIONS

f.	feminine	sg.	singular
m.	masculine	subj.	subjunctive
n.	noun	v.	verb

REFERENCES

Bello, Andrés and Rufino J. Cuervo. 1941. *Gramática de la lengua castellana*. Buenos Aires: Ediciones Anaconda.

Butt, John and Carmen Benjamin. 1988. *A new reference grammar of modern Spanish*. London: Edward Arnold.

Cairns, Charles E. 1988. Phonotactics markedness and lexical representation. *Phonology* 5:209-36.

Castillo, Carlos and Otto F. Bond. 1961. *The University of Chicago Spanish-English, English-Spanish dictionary*. New York: Washington Square Press.

Corominas, Juan. 1954. *Diccionario crítico etimológico de la lengua castellana*. Bern, Switzerland: Editorial Francke.

Harris, James W. 1969. *Spanish phonology*. Cambridge, Massachusetts: The MIT Press.

Harris, James W. 1983. *Syllable structure and stress in Spanish: a nonlinear analysis*. Cambridge, Massachusetts: The MIT Press.

Hooper, Joan B. 1972. The syllable in phonological theory. *Language* 48:525-40.

Hooper, Joan B. 1976. *An introduction to natural generative phonology*. New York: Academic Press.

Itô, Junko. 1986. *Syllable theory in prosodic phonology*. PhD dissertation. Amherst: University of Massachusetts.

Lowenstamm, Jean. 1981. On the maximal cluster approach to syllable structure. *Linguistic Inquiry* 12:575-604.

Martínez Amador, Emilio M. 1954. *Diccionario gramatical*. Barcelona: Editorial Ramón Sopena.

Mohanan, Tara. 1989. Syllable structure in Malayalam. *Linguistic Inquiry* 20:589-625.

Navarro Tomás, Tomás. 1965. *Manual de pronunciación española*. Madrid: Publicaciones de la Revista de Filología Española.

Oxford Latin dictionary. 1968. Oxford: Oxford University Press.

Parker, Steve. 1989. The sonority grid in Chamicuro phonology. *Linguistic Analysis* 19:3-58.

Pei, Mario A. 1968. *The New World Spanish-English and English-Spanish dictionary*. New York: The World Publishing Company.

Place, Edwin B. and Arturo Torres-Rioseco. 1943. *Contemporary Spanish grammar*. New York: Oxford University Press.

Quilis, Antonio and Joseph A. Fernández. 1971. *Curso de fonética y fonología españolas para estudiantes angloamericanos*. Madrid: Consejo Superior de Investigaciones Científicas.

Ramsey, Marathon Montrose. 1934. *A text-book of Modern Spanish*. New York: Henry Holt.

Santamaría, Francisco J. 1959. *Diccionario de mejicanismos*. Mexico: Editorial Porrua.

Stirling, William F. 1935. *The pronunciation of Spanish*. Cambridge, England: Cambridge University Press.

Velázquez de la Cadena, Mariano. 1967. *A new pronouncing dictionary of the Spanish and English languages*. New York: Appleton/Century/Crofts.

Zerolo, Elías. n.d. *Diccionario enciclopédico de la lengua castellana*. Paris: Casa editorial Granier Hermanos.

AGUTAYNEN GLOTTAL STOP[1]

J. Stephen Quakenbush

1 Introduction
2 Phonemics of Agutaynen glottal stop
3 Morphophonemics of Agutaynen glottal stop
4 Variability in the use of Agutaynen glottal stop
5 Glottal stop in other Philippine languages
6 Summary

1 Introduction

In his 1982 discussion of Austronesian laryngeals, Zorc called for more information on "the phonemic and morphophonemic status of [ʔ] and [h] in various Austronesian languages" (Zorc 1982:133). An analysis of glottal stop in Agutaynen[2] does indeed yield interesting information, not so much due to any immediate relevance to the reconstruction of Austronesian proto-forms, as was Zorc's goal in 1982, but rather because it presents a clearly visible case of a sound change in progress.

Agutaynen is unusual among Philippine languages in that its glottal stop only occurs word medially preceding another consonant.[3] In this particular environment, contrary to what might be expected, glottal stop cannot be construed to be a reflex of any of the Proto-Philippine laryngeals: **q, *ʔ, *h*, or **Ø*. As Zorc (1982) claims for the Kalamian dialects in general, Agutaynen has a [k] reflex for PPH **q*, and zero reflexes for **ʔ, *h* and **Ø*.[4] Hence, Agutaynen glottal stop is not derived from any laryngeal proto-form, but rather from a phonological rule which neutralizes contrast among stops in preconsonantal position. The variable nature of this rule indicates that a sound change is in progress, and I hypothesize below that there are both linguistic and social forces influencing its spread through the language.

2 Phonemics of Agutaynen glottal stop

Agutaynen has 13 consonants, 4 vowels, and 2 semi-vowels, as detailed in Table 1.[5]

p	t	k	ʔ	i	ɨ	u
b	d	g			a	
m	n	ŋ				
	l			y		w
	r					
	s					

Table 1. Phonemes of Agutaynen.

The existence of the glottal phoneme can be established by contrast with its absence. In simple roots it is difficult to find contrast in identical environments, although there are at least two minimal pairs, given in examples (1)-(2).

(1)	*buʔli*	'lie'	vs	*buli*	'bottom'
(2)	*baʔlu*	'new'	vs	*balu*	'widow(er)'

In addition to these two minimal pairs, there are numerous instances of contrast in analogous environments, as shown in examples (3)-(10).

(3)	*aʔpɨn*	'join'	*apun*	'afternoon'
(4)	*luʔtu*	'jump'	*lutuk*	'cook'
(5)	*maʔkal*	'snake'	*bakal*	'buy'
(6)	*laʔbaŋ*	'width'	*tabaŋ*	'help'
(7)	*tɨʔma*	'question'	*ɨmɨt*	'face'
(8)	*bɨʔna*	'stutter'	*lino*	'winnowing tray'
(9)	*uʔya*	'good'	*luya*	'garlic'
(10)	*biʔwa*	'intestines'	*diwata*	'spirit'

The fact that glottal stop occurs only preceding a consonant in (1)-(8) provides incidental evidence for the consonantal status of the semivowels in (9)-(10). As stated above, Agutaynen glottal stop does not occur intervocalically,[6] and it is never contrastive in word initial or word final position.

Other consonants which occur within a root as the first member of a consonant cluster include *b, d, g, m, n, ŋ, l, r,* and *s,* as illustrated in examples (11)-(19).

(11)	*ab̲dɨt*	'pregnant'
(12)	*id̲mundu*	'proper name'[7]
(13)	*tɨg̲ka*	'until'
(14)	*am̲bɨ*	'rat'
(15)	*an̲da*	'none'
(16)	*aŋ̲kɨn*	'niece/nephew'
(17)	*sil̲dɨ*	'hiccup'
(18)	*ar̲bun*	'plumeria tree'[7]
(19)	*is̲mail*	'proper name'[7]

It will be noted that the consonant clusters in examples (11)-(19) all occur across a syllable boundary. The only clusters that occur in word initial position involve a liquid or nasal as the second consonant, in such borrowed forms as (20) and (21). No examples have been found of consonant clusters in word final position.

(20)	*traidor*	'dishonest person'
(21)	*platon*	'plate'

The voiceless stops *p, t,* and *k* do not occur before another consonant in Agutaynen. This suggests that Agutaynen's glottal stop may actually be the result of a neutralization of contrast among voiceless stops in preconsonantal position. By comparing Agutaynen forms with reconstructions, or with their Kalamian Tagbanwa[8] cognates as in examples (22)-(24), it becomes obvious that this is indeed the case, at least in part.

	Agutaynen	*Kalamian Tagbanwa*	*Gloss*
(22)	*mu?ya*	*mupya*	'good'
(23)	*bi?wa*	*bitwa*	'intestines'
(24)	*da?tal*	*daktal*	'floor'

A rule that accounts for most occurrences of glottal stop in Agutaynen roots, then, could be formulated as follows:

Rule 1a (obligatory): C --> ? /___C
[-cont, -voi]

Since it is impossible to recover the "original" or "underlying" initial stop in consonant clusters such as those in examples (3)-(10) apart from comparative or historical analysis, it would seem reasonable to ignore its various sources and simply posit glottal stop as an Agutaynen phoneme of limited distribution. There are, however, many examples of glottal stop in Agutaynen where the "original" stop is easily recoverable. These occur when roots take certain verbal affixes, a process considered in Section 3.

3 Morphophonemics of Agutaynen glottal stop

While Agutaynen glottal stop occurs relatively infrequently in uninflected roots, in words of more than one morpheme it is both pervasive and "traceable". Several minimal pairs are apparent in morphologically complex forms (such as the derived verb stem *paʔlɨt* < *pa+tɨlɨt* 'to substitute/change' versus the noun *palɨt* 'wind'), but it is when verbs combine with their various inflectional affixes that the rules resulting in glottal stop are most productive and obvious. In examples (25)-(30), the neutralization rule as formulated in Rule 1a above interacts with a vowel deletion rule to produce a glottal stop.

	Root		*Affixation*	*V-Deletion*	*Neutralization*	
(25)	*pɨla*	'low tide'	*ma+pɨla+an*	> *mapØlaØn*	> *maʔlan*	'(it) will be beached'
(26)	*pɨtɨk*	'crack'	*ma+pɨtɨk*	> *mapØtɨk*	> *maʔtɨk*	'(it) will crack'
(27)	*pɨtɨk*	'crack'	*pɨtɨk+ɨn*	> *pɨtØkɨn*	> *pɨʔkɨn*	'crack (it)!'
(28)	*lɨtɨm*	'hunger'	*lɨtɨm+ɨn*	> *lɨtØmɨn*	> *lɨʔmɨn*	'be hungry'
(29)	*ɨkɨl*	'bring'	*ɨkɨl+an*	> *ɨkØlan*	> *ɨʔlan*	'bring (it)!'
(30)	*tɨkɨd*	'tie'	*tɨkɨd+ɨn*	> *tɨkØdɨn*	> *tɨʔdɨn*	'tie (it)!'

In each of these examples the deletion of a high central vowel *ɨ* results in a consonant cluster, which in turn is reduced to *ʔC*. The deleted *ɨ* is always the vowel of the second syllable in a three or four syllable word.[9] Noncontracted verb forms are also possible. That is, an Agutaynen speaker may say *mapɨtɨk* and *pɨtɨkɨn*, instead of *maʔtɨk* and *pɨʔkɨn*, but such forms are rarely attested.

Depending on whether a root is prefixed or suffixed, different stops of the same root can be reduced to a glottal. This dual possibility for reduction is illustrated in (26)-(27) in the two derivations involving the root *pɨtɨk* 'to crack'. In (26) the p is reduced to glottal in *maʔtɨk* '(it) will crack', but in (27) it is the *t* which is reduced to glottal in *pɨʔkɨn* 'crack (it)!'

The vowel deletion rule is not entirely limited to the high central vowel. Example (31) illustrates that there are also instances of deletion of the high back vowel *u*. I have found no instances, however, of deletion of the high front vowel *i* or low central vowel *a*.

(31)	*lubut*	'used up'	*lubut+un*	> *lubØtun*	> *luʔtun*	'use (it) up!'
(32)	*bɨtaŋ*	'put'	*i+bɨtaŋ*	> *ibØtaŋ*	> *iʔtaŋ*	'put (it)!'
(33)	*dɨkal*	'shine'	*dɨ+dɨkal*	> *dɨdØkal*	> *dɨʔkal*	'(it) shines'

Examples (25)-(33) demonstrate that when a verb form is contracted through vowel deletion, the neutralization rule applies regardless of the voicing of the initial consonant of the cluster.[10] Such examples require that Rule 1a be revised to include voiced consonants. The more general form of Rule 1b can no longer be obligatory, however, since examples (11)-(13) above show voiced stops occurring before other consonants.

Rule 1b (optional): $\underset{[-\text{cont}]}{\text{C}} \dashrightarrow ?\ /\ \underline{\quad}\,\text{C}$

Other morphophonemic rules may also interact with the vowel deletion and neutralization rules, as demonstrated in (34), where the sequence *-?r-* becomes *-?d-*, and in (35), where *-pn-* becomes *-?m-*.[11]

(34) *k̲ɨrɨŋ* 'stand' *kɨ+kɨrɨŋ* > *kɨkØrɨŋ* > *kɨ?dɨŋ* 'stands'
(35) *p̲unuk* 'full' *ma+punuk+an* > *mapØnukan* > *ma?mukan* 'be filled'

4 Variability in the use of Agutaynen glottal stop

The neutralization rule as formalized in Rule 1b applies obligatorily to any root which has undergone contraction through vowel deletion. It does not apply, however, to all Agutaynen roots, as seen in (11)-(13). There are even a few roots for which there are alternate pronunciations, as in examples (36)-(38), where one alternative employs a glottal and the other a voiced stop.

(36) *ma?̲sik* *mab̲tik*[12] 'lively, quick'
(37) *ma?̲kal* *mag̲kal* 'snake'
(38) *tɨ?̲ka* *tɨg̲ka* 'until'

In (36)-(37) the glottal stop pronunciation is more common, but the forms with *b* and *g* are also possible. In (38) the *g* form seems to be the preferred pronunciation, but the glottal form is also possible. Examples (37) and (38) thus show opposing preferences for the use of the rule in analogous environments, indicating that its diffusion among roots is a process which is not yet complete.

Examples (36)-(38) are isolated examples of the irregular application of the neutralization rule within roots, each one involving a voiced consonant as the initial member of the consonant cluster. The variable application of the neutralization rule is seen more clearly in the case of *-gC-* sequences which occur across a morpheme boundary. This *-g+C-* sequence is an extremely common one due to the large inventory of consonant initial roots that can take the verbalizing prefix *mag-* (and its aspectual variants *pag-* and *nag-*). It is in this particular linguistic environment, illustrated in examples (39)-(47), that the application of the neutralization rule varies the most according to speaker.

(39)	*mag+pabakal*	'to sell'	*magpabakal*	*or*	*ma?pabakal*
(40)	*mag+turul*	'to give'	*magturul*		*ma?turul*
(41)	*mag+kalaw*	'to grab'	*magkalaw*		*ma?kalaw*
(42)	*mag+bantay*	'to guard'	*magbantay*		*ma?bantay*
(43)	*mag+duŋkul*	'to cook rice'	*magduŋkul*		*ma?duŋkul*
(44)	*mag+gulu*	'to disturb'	*maggulu*		*ma?gulu*
(45)	*mag+lutuk*	'to cook'	*maglutuk*		*ma?lutuk*
(46)	*mag+rutus*	'to chase'	*magrutus*		*ma?rutus*
(47)	*mag+sisiŋ*	'to wear a ring'	*magsisiŋ*		*ma?sisiŋ*

Without a great deal more quantitative data it is impossible to characterize precisely the factors which influence the application of the neutralization rule across a morpheme boundary. It is my observation that some speakers consistently use glottal, while others consistently use *g*. This variation may largely be due to geographic dialect, with speakers from different islands using glottal to varying degrees. It may be age graded, and it may also signal style shifting. My impression is that all three factors are involved, and that the use of the glottal is more common among middle-aged speakers and in informal styles. If it is indeed more common among middle-aged speakers, such a tendency could be explained in terms of an innovation, the spread of which is currently being blocked by the influence of an increasingly prestigious and increasingly used second language (Tagalog).[13]

In summary, the neutralization rule can be reformulated once again as Rule 1c, this time with four qualifying conditions.

Rule 1c (variable) $\underset{[-\text{cont}]}{C_i} \dashrightarrow ? \;/\; \_\_\_ C_{ii}$

(1) categorical when C_i is voiceless
(2) categorical when $-C_iVC_{ii}- > -C_i\emptyset C_{ii}-$
(3) nearly categorical within unaffixed roots when C_i is voiced
(4) dependent on social variables when $C_i \;/\; \_\_\_ + C_{ii}$

Rule 1c shows a variable phonological rule that is applied categorically in simple roots when the underlying initial consonant of the cluster is voiceless, as well as in affixed roots when a consonant cluster results from vowel deletion. The rule applies somewhat irregularly in simple roots involving initial voiced consonants in a cluster, and is clearly variable at a morpheme boundary (which always involves the voiced stop *g* as the initial consonant of the cluster).

The actual use (or disuse) of the neutralization rule across a morpheme boundary is open to conscious "correction" and social evaluation by Agutaynen speakers. I was once corrected by a college educated man in his early twenties, who pointed out that *mag-* was really the correct pronunciation, not *maʔ-*. There are at least three possible reasons why this speaker would have expressed such an opinion: (1) glottal stop represents an innovation which has not yet completely spread throughout the language; (2) this speaker is influenced by Tagalog, which is widely known and highly esteemed among his age-mates, and does not allow a *ʔC* sequence; or (3) the speaker prefers a more "careful" or "articulate" pronunciation of his own language. It is likely that all three of these factors operate to make the *ʔ+C* sequence sound especially peculiar and undesirable in the speech of a foreigner.[14]

It appears, then, that Agutaynen glottal stop is the result of a neutralization of contrast rule – an innovation which has applied in progressively more general linguistic environments. It originally applied to voiceless consonants within roots (where it now applies without exception) and has spread to include most voiced ones as well. From there it has proceeded to apply across a morpheme boundary, in cases where a prefix-final *g* precedes a consonant-initial root. In this last environment the innovation is apparently sensitive to social factors, and obviously operates on a conscious level for some speakers.[15]

5 Glottal stop in other Philippine languages

As noted above, glottal stop in Philippine languages typically occurs as a reflex of one of four Proto-Philippine laryngeals: PPH **q, *ʔ, *h* or **Ø*. Glottal stop also commonly occurs in Philippine languages in utterance-initial or utterance-final position, where in many cases it can be interpreted as a "phonetic or phonotactic feature of word closure or onset", as Zorc (1982:126) claims for Formosan languages. In Agutaynen, glottal stop clearly springs from a different source. It is the result of a neutralization of contrast among (mostly voiceless) stops occurring before other consonants. This source for glottal stop may be a relatively common one, at least for those Philippine languages which allow a preconsonantal glottal.

At least two Northern Philippine languages--Ga'dang of Mountain Province and Isnag of Apayao--do contain glottal stops that result from neutralization of contrast. Examples (48)-(49) compare forms from Ga'dang with their equivalents in two neighboring languages.[16]

(48) *duʔdut* (Ga'dang) *dutdut* (Kallahan) 'feather'
(49) *baʔnaŋ* (Ga'dang) *baknaŋ* (Ilocano) 'rich'

This neutralization of contrast among voiceless stops before another consonant also occurs across a morpheme boundary in Ga'dang, as in examples (50)-(52).

(50) *ilap* 'knife' + *-da* 'their' > *ilaʔda*
(51) *palyot* 'flute' + *-mi* 'our excl.' > *palyoʔmi*
(52) *parayuk* 'skillet' + *-mi* 'our excl.' > *parayuʔmi*

Interestingly, when a neutralization rule produces a glottal stop before the Ga'dang suffix *-na*, the suffix-initial nasal assimilates to the point of articulation of the preceding underlying stop, as shown in (53)-(55).[17]

(53) *ilap* 'knife' + *-na* 'his/her' > *ilaʔma*
(54) *gatut* 'debt' + *-na* " > *gatuʔna*
(55) *akyak* 'sifter' + *-na* " > *akyaʔŋa*

The neutralization rule operative in the Isnag language is even more strikingly similar to that of Agutaynen, operating as it does in conjunction with a vowel deletion rule.[18] Examples (56)-(58) show that a single or geminate voiceless stop neutralizes to glottal when brought into a consonant cluster as the result of vowel deletion (in this case of the mid-central short vowel a). Examples (59)-(60) show that the rule does not apply to voiceless bilabial stops. Neither does it apply to voiced stops.

(56) *kattab* 'cut' *kattab+an* > *kattØban* > *kaʔban* 'cut (it)!'
(57) *kattab* 'cut' *na+kattab* > *nakØttab* > *naʔtab* '(it) was cut'
(58) *katal* 'itch' *na+katal+an* > *nakØtalan* > *nakaʔlan* '(it) was itchy'
(59) *ʔapat* 'invite' *ʔapat+an* > *ʔapØtan* > *ʔaptan* 'invite (him/her)!'
(60) *pannu* 'full' *na+pannu* > *napØnnu* > *napnu* '(it) filled'

In Agutaynen, as well as in the two Northern Philippine languages, there are relatively few glottal stops in simple roots but a great many in connected speech. In Agutaynen and Isnag this is due to verbal affixation, while in Ga'dang it is due to the frequent use of pronouns.

In spite of the considerable geographic and genetic separation of Agutaynen from Ga'dang and Isnag, these three languages manifest very similar neutralization rules. The differences in the three languages with regard to glottal stop are that: (1) in Agutaynen, glottal stop occurs contrastively solely before another consonant, while in

Ga'dang and Isnag it occurs contrastively in other environments as well; (2) in Agutaynen both voiced and voiceless stops may undergo neutralization, while in Ga'dang only voiceless stops do, and in Isnag only voiceless alveolar and velar stops participate; (3) in Agutaynen and Isnag glottal stop is commonly the result of a vowel deletion rule which creates consonant clusters within a morpheme, while in Ga'dang there is no such rule. Rather, many Ga'dang consonant clusters are the result of a juxtaposition of roots and pronoun forms.

6 Summary

I have considered in this paper the phonemic and morphophonemic patterning of glottal stop in a Meso-Philippine language, Agutaynen, with some comparative notes from two Northern Philippine languages. Agutaynen glottal stop has as its sole origin a neutralization of contrast rule, the operation of which can be noted in three different linguistic environments: within a simple root, within an affixed root in combination with a vowel-deletion rule, and at a morpheme boundary between a root and an affix. Within unaffixed roots, the application of the rule is nearly categorical, with only a few exceptions involving a voiced stop as the initial member of the consonant cluster. Within affixed roots, the rule is obligatory in a consonant cluster resulting from vowel deletion. With consonant clusters across a morpheme boundary, the use of glottal stop shows considerable variation according to speaker, and possibly according to style as well. Although it is not possible at this point to specify precisely all the factors influencing its application, the neutralization rule is apparently sensitive to social factors in this environment. My hypothesis is that glottal stop in Agutaynen represents an innovation which has been spreading through the language for some time, but which is currently being halted (across a morpheme boundary) by the influence of a more prestigious and increasingly used second language.

Philippine languages very generally contain glottal stop in their phonemic inventories, either as a reflex of one of the Proto-Philippine laryngeals, or as a phonotactic feature of utterance onset or closure. The introduction of glottal stop through neutralization of contrast is a little-documented phenomenon, but its presence in at least three languages — Agutaynen, Ga'dang, and Isnag — suggests that such a process may be even more widespread among those Philippine languages which allow a preconsonantal glottal.

NOTES

1. This paper was presented at the Sixth International Conference on Austronesian Linguistics in Honolulu, Hawaii May 20-24, 1991. I express my gratitude to the Philippine Department of Education, Culture and Sports, in conjunction with whom the Summer Institute of Linguistics works in that country. Numerous colleagues have assisted me by commenting on earlier versions of this paper. I wish to thank Sherri Brainard, Dick Elkins, Paul Kroeger, Mike Maxwell, Malcolm Mintz, Tom Payne, Charles Peck, Cal Rensch, John Wolff and David Zorc. Special thanks also to Kippy Forfia, Gail Hendrickson, Randy Kamp, Rosemary Rodda, Dick Roe and Ed Ruch, who shared with me their expertise in Ga'dang, Agutaynen, Gaddang, Batak, Isnag and the Kalamian dialects, respectively.

2. Agutaynen is a language of northern Palawan province with approximately 10,000 speakers. According to Zorc (1977) it belongs to the Kalamian group, a member of the Meso-Philippine branch. McFarland (1980) classifies Agutaynen in a minimally distinct manner, as part of the Northern Palawan group. The current researcher has lived intermittently in the Agutaynen communities of Barangay Minarra, Roxas, Palawan and Agutaya Island since 1984.

3. Postconsonantal glottals are far more common in Philippine languages as represented in Reid 1971. Standard Bikol (Mintz, personal communication) and some dialects of Cebuano (Wolff, personal communication) contain preconsonantal glottal stops, as do Batak of Palawan, Ga'dang of Mountain Province, and Isnag of Apayao. Unlike Agutaynen, each of these languages also has an intervocalic glottal. Other languages which contain more than one occurrence of preconsonantal glottal in Reid's (1971) word lists are Itbayaten and Ivatan of Batanes, Central Cagayan Agta, Ilongot and Ifugao. With the exception of the Batanes languages, most of these glottals occur before alveolar consonants.

4. Zorc notes that his Kalamian data include a fair number of zero reflexes (instead of the expected [k]) for PPH _*q_, as in _*qalima:ŋu_ > _Agy alimaŋo_. He attributes these exceptions to borrowings.

5. Quakenbush and Maxey 1986 (unpub. ms.) contains a fuller treatment of the phonemes of Agutaynen. As shown in

this paper, the phonemic status of glottal stop is debatable.

6. There are two exceptions to this generalization: the very common vocative forms *aʔiŋ* 'little girl', and *aʔuy* 'little boy'. Blust (1970) and Zorc (1978:94) have both shown that vocatives may pattern differently than other forms in a language. By comparing the Agutaynen forms with terms widely used in neighboring languages, it is not difficult to see that the former could have evolved as the result of a vowel deletion rule and neutralization of contrast among geminate consonants: *a+niniŋ* > *anØniŋ* > *aʔiŋ,* and *a+duduy* > *adØduy* > *aʔuy.*

7. Obviously, these borrowed terms are not as desirable for examples as indigenous terms, but I have no others. In the borrowing process, they have been adapted somewhat to fit the Agutaynen phonological system.

8. Referred to as Northern Tagbanwa in Zorc 1982. Ed Ruch supplied these forms.

9. The following sets of verbalizing affixes trigger vowel deletion: (1) *-om-,* initial CV- reduplication, *-imin-;* (2) *i-, -in-;* (3) *ma-, ga-, na-;* and (4) *-an, -ɨn, -on*. The Actor Focus prefix sets (5) *mag-, pag-, nag-,* and (6) *maŋ-, paŋ-, naŋ-* do not trigger vowel deletion.

I have been unable to formulate a more precise phonological rule than the one offered here. Two colleagues (Malcolm Mintz and John Wolff, personal communication) have independently suggested that the rule may interact with stress, although stress generally plays a very minimal role in Agutaynen phonology.

10. I have no examples in Agutaynen of forms such as *maptɨk* or *lubtun,* although Ed Ruch (personal communication) suspects that such forms do occur in Kalamian dialects other than Kalamian Tagbanwa and Agutaynen.

11. Two additional forms that are not accounted for by the glottal stop rule as posited in this paper are: *maba-yan* 'to hear' < *ma- + basi + -an,* and *mata-wanan* 'to be known' < *ma- + tako +(an) +-an.*

12. There is also a spirantization rule at work here, which changes an alveolar stop to a fricative before a high front vowel. This rule is a variable one, used more consistently by older speakers. Its application is apparently blocked by the presence of the voiced bilabial stop in *mabtik*.

13. For a discussion of language attitudes and patterns of language use among Agutaynens, see Chapter 5 of Quakenbush 1989.

14. It is highly unlikely that an adult native speaker would have been corrected for such a pronunciation. I offer my intuitions for what they are worth, realizing that this entire paragraph is speculative in nature.

15. In Labov's (1972) terms, this would mean that Agutaynen glottal stop has progressed from being a simple linguistic "indicator", to a "marker", and may be on its way to becoming a "stereotype".

16. All Ga'dang forms are from Kathleen Forfia (personal communication). According to Forfia and to Randy Kamp (personal communication), the neutralization of contrast shown here does not occur in the lowland dialect of Gaddang, spoken around Bagabag, Solano and Bayombong.

17. A similar process of nasal assimilation occurs in the Agutaynen example (35) *ma?mukan* 'get swamped' < *ma-punuk -an*.

18. All Isnag forms are from Dick Roe (personal communication).

REFERENCES

Blust, Robert A. 1970. Proto-Austronesian addenda. *Oceanic Linguistics* 9.2:104-162.

Labov, William. 1972. On the mechanism of linguistic change. *Directions in sociolinguistics,* ed. by Gumperz and Hymes, 512-538. New York: Holt, Rinehart & Winston.

McFarland, Curtis D. 1980. *A linguistic atlas of the Philippines.* Institute for the Study of Languages and Cultures of Asia and Africa Monograph Series, 15. Tokyo University of Foreign Studies.

Quakenbush, J. Stephen. 1989. *Language use and proficiency in a multilingual setting: a sociolinguistic survey of Agutaynen speakers in Palawan, Philippines.* Special monograph 28. Manila: Linguistic Society of the Philippines.

Quakenbush, J. Stephen & James Maxey. 1986. Agutaynen phonemic statement. ms. Summer Institute of Linguistics – Philippines.

Zorc, R. David. 1977. *The Bisayan dialects of the Philippines: subgrouping and reconstruction.* Pacific Linguistics, C-44.

Zorc, R. David. 1978. Proto-Philippine word accent: innovation or Proto-Hesperonesian retention? *Second International Conference on Austronesian Linguistics: proceedings,* ed. by S.A. Wurm and Lois Carrington, 67-119. Pacific Linguistics, C-61.

Zorc, R. David. 1982. Where, oh where, have the laryngeals gone? *Papers from the Third International Conference on Austronesian Linguistics, vol. 2: Tracking the travellers,* ed. by Halim, Carrington & Wurm, 111-144. Pacific Linguistics, C-75.